



## Rocglen Coal Mine- Monthly Monitoring Summary

### Site Information

**EPL No:** 12870

**EPA Website Link:** <http://epa.nsw.gov.au/prpoeoapp/ViewPOEOLicence.aspx?DOCID=40278&SYSUID=1&LICID=12870>

**Licensee:** Whitehaven Coal Mining Pty Ltd

**Licensee Address:** Rocglen Coal Mine, Wean Road, GUNNEDAH NSW 2380

**EPL Monitoring Points:** See Figure 1 below

**Sampling Period:** January 2016

**Publication Date:** 15 February 2016

**Table 1 - No Pollutant Limits Apply**

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Month	Date(s) Sampled	Date(s) Obtained	Min Value	Mean Value	Median Value	Max or Only Value
4	Particulates-Deposited Matter	g/m <sup>2</sup> /month	Continuous	1	21-01-16	27-01-16	-	-	-	4.5
6	Particulates-Deposited Matter	g/m <sup>2</sup> /month	Continuous	1	21-01-16	27-01-16	-	-	-	0.5
7	Particulates-Deposited Matter	g/m <sup>2</sup> /month	Continuous	1	21-01-16	27-01-16	-	-	-	0.7
10	PM <sub>10</sub>	µg/m <sup>3</sup>	Every 6 days	6	Various	10/02/16	0.2	6.22	5.6	12.8
11	Conductivity	µS/cm	Special Frequency 1*	0	-	-	-	-	-	-
	Total organic carbon	mg/L					-	-	-	-
12	Conductivity	µS/cm	Special Frequency 1*	0	-	-	-	-	-	-
	Total organic carbon	mg/L					-	-	-	-
13	TSS	mg/L	Special Frequency 2**	0	-	-	-	-	-	-
	Conductivity	µS/cm					-	-	-	-
	Oil & Grease	mg/L					-	-	-	-
	pH	pH					-	-	-	-
	Total organic carbon	mg/L					-	-	-	-
	TSS	mg/L		-	-	-	-	-	-	-



# WHITEHAVEN COAL

## Rocgen Coal Mine- Monthly Monitoring Summary

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Month	Date(s) Sampled	Date(s) Obtained	Min Value	Mean Value	Median Value	Max or Only Value
14	Conductivity	µS/cm	Special Frequency 2**				-	-	-	-
	Oil & Grease	mg/L					-	-	-	-
	pH	pH					-	-	-	-
	Total organic carbon	mg/L					-	-	-	-
15	TSS	mg/L	Special Frequency 2**	-	-	-	-	-	-	-
	Conductivity	µS/cm					-	-	-	-
	Oil & Grease	mg/L					-	-	-	-
	pH	pH					-	-	-	-
	Total organic carbon	mg/L					-	-	-	-

**Table 2 - Pollutant Limits Apply**

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Month	Date(s) Sampled	Date(s) Obtained	Min Value	Max or Only Value	100%ile Limit	Exceedance (Yes/No)	Comments
11	TSS	mg/L	Special Frequency 1*	0	-	-	-	-	-	-	-
	Oil & Grease	mg/L					-	-	-	-	
	pH	pH					-	-	-	-	
12	TSS	mg/L	Special Frequency 1*	0	-	-	-	-	-	-	-
	Oil & Grease	mg/L					-	-	-	-	
	pH	pH					-	-	-	-	

\* Special Frequency 1 means the collection of samples as soon as practicable after each discharge commences and in any case not more than 12 hours after each discharge commences.

\*\* Special Frequency 2 means collection of samples quarterly (in the event of flow during the quarter) at a time when there is flow and as soon as practicable after each wet weather discharge from points 11 and 12 commences and in any case not more than 12 hours after each discharge commences.

## Rocgen Coal Mine- Monthly Monitoring Summary

**Table 3 – Monitoring (Quarterly & Yearly – No Limits apply)**

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Month	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max Value/Only Value
16	Aluminium	mg/L	Yearly	0	-	-	-	-	-	-
	Arsenic	mg/L					-	-	-	-
	Bicarbonate	mg/L					-	-	-	-
	Chloride	mg/L					-	-	-	-
	Iron	mg/L					-	-	-	-
	Manganese	mg/L					-	-	-	-
	Sodium	mg/L					-	-	-	-
16	Conductivity	µS/cm	Quarterly	0	-	-	-	-	-	-
	Oil & Grease	mg/L					-	-	-	-
	pH	pH					-	-	-	-
	TOC	mg/L					-	-	-	-
	TSS	mg/L					-	-	-	-



**Rocglen Coal Mine- Monthly Monitoring Summary**  
**Table 4 – Monitoring (Noise – Limits Apply)**

EPL ID	Date	Start Time	Period (mins)	Measured Levels – dB(A) Leq 15min Day	Measured Levels – dB(A) Leq 15min Evening	Measured Levels – dB(A) Leq 15min Night	Measured Levels – dB(A) LA 1min Night	Limits	Wind speed (m/s) /direction	Compliant (Y/N)	Comments
N1	-	-	-					35 dB(A) Leq (15 min) Day, Evening, Night  45dB(A) L <sub>A</sub> (1 min) Night	-	-	
		-	-						-	-	
		-	-						-	-	
		-	-						-	-	
	-	-					-		-		
	-	-					-		-		
	-	-					-		-		
	-	-					-		-		
	-	-					-		-		
	-	-					-		-		
	-	-					-		-		
	-	-					-		-		
N2	-	-	-					35 dB(A) Leq (15 min) Day, Evening, Night  45dB(A) L <sub>A</sub> (1 min) Night	-	-	
		-	-						-	-	
		-	-						-	-	
		-	-						-	-	
	-	-					-		-		
	-	-					-		-		
	-	-					-		-		
	-	-					-		-		
	-	-					-		-		
	-	-					-		-		
	-	-					-		-		
	-	-					-		-		

-Note: Measured noise levels refer to noise attributable to Rocglen Coal Mine



# WHITEHAVEN COAL

**Rocglen Coal Mine- Monthly Monitoring Summary**  
**Table 5 – Monitoring (Blasts – Limits Apply)**

EPL ID	Parameter	Units of Measure	Frequency	No. of Blasts for the Month	Average Value	Max or Only Value	100%ile Limit	(Potential) Non-compliance /breach
BB1	Blast Noise	dB (Lin Peak)	Every Blast	1	-	100.2	120	No
	Blast Vibration	mm/s	Every Blast		-	0.19	10	No
BB3	Blast Noise	dB (Lin Peak)	Every Blast	1	-	111.7	120	No
	Blast Vibration	mm/s	Every Blast		-	0.48	10	No



## Rocgen Coal Mine- Monthly Monitoring Summary

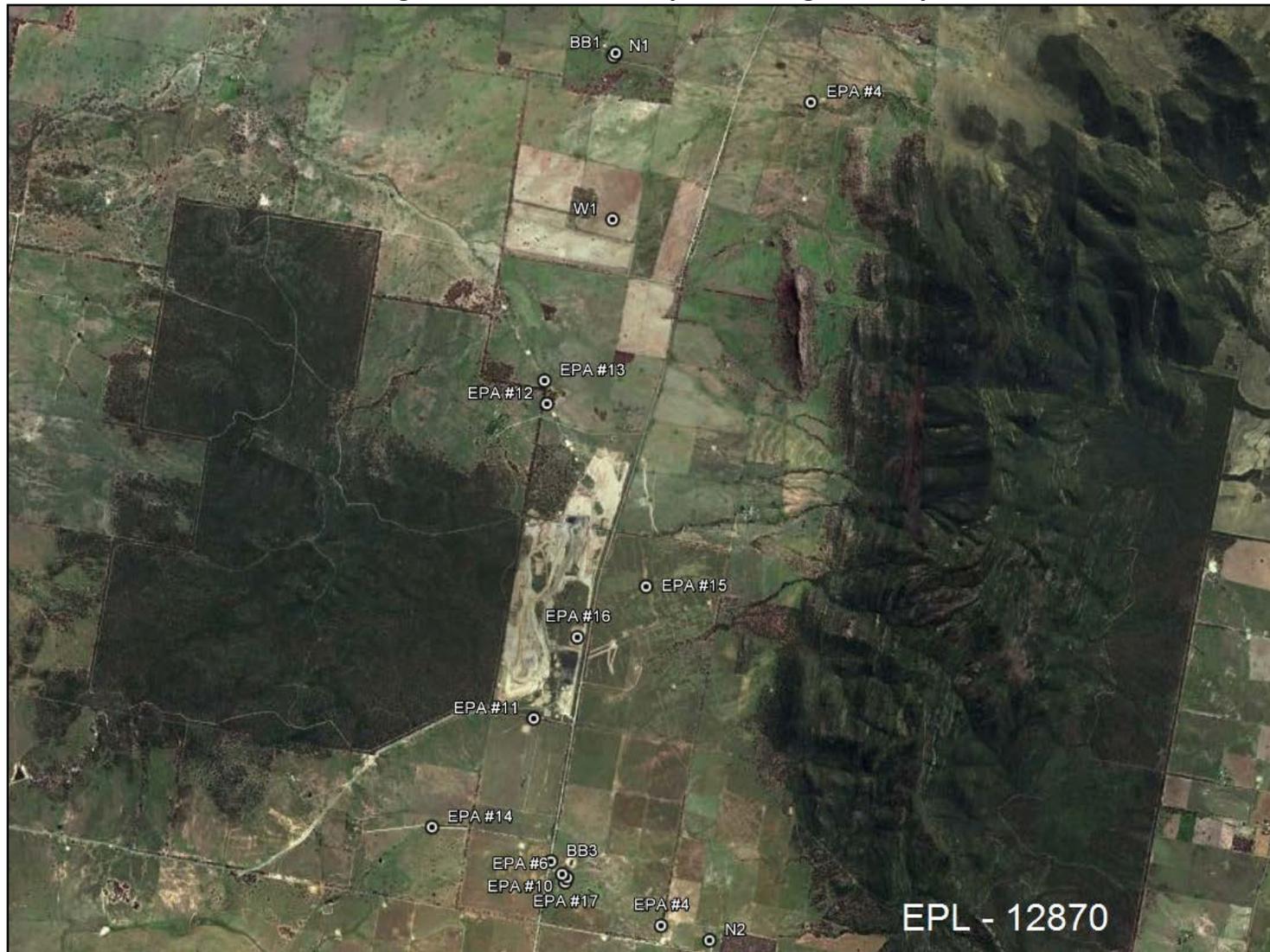


Figure 1 – EPL 12870 Monitoring Locations



## Rocglen Coal Mine- Monthly Monitoring Summary

### Site Information

**EPL No:** 12870

**EPA Website Link:** <http://epa.nsw.gov.au/prpoeoapp/ViewPOEOLicence.aspx?DOCID=40278&SYSUID=1&LICID=12870>

**Licensee:** Whitehaven Coal Mining Pty Ltd

**Licensee Address:** Rocglen Coal Mine, Wean Road, GUNNEDAH NSW 2380

**EPL Monitoring Points:** See Figure 1 below

**Sampling Period:** February 2016

**Publication Date:** 18 March 2016

**Table 1 - No Pollutant Limits Apply**

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Month	Date(s) Sampled	Date(s) Obtained	Min Value	Mean Value	Median Value	Max or Only Value
4	Particulates-Deposited Matter	g/m <sup>2</sup> /month	Continuous	1	19/02/16	26/02/16	-	-	-	0.9
6	Particulates-Deposited Matter	g/m <sup>2</sup> /month	Continuous	1	19/02/16	26/02/16	-	-	-	0.7
7	Particulates-Deposited Matter	g/m <sup>2</sup> /month	Continuous	1	19/02/16	26/02/16	-	-	-	0.8
10	PM <sub>10</sub>	µg/m <sup>3</sup>	Every 6 days	6	Various	14-3-16	7.2	15.2	13.5	26.2
11	Conductivity	µS/cm	Special Frequency 1*	0	-	-	-	-	-	-
	Total organic carbon	mg/L					-	-	-	-
12	Conductivity	µS/cm	Special Frequency 1*	0	-	-	-	-	-	-
	Total organic carbon	mg/L					-	-	-	-
13	TSS	mg/L	Special Frequency 2**	0	-	-	-	-	-	-
	Conductivity	µS/cm					-	-	-	-
	Oil & Grease	mg/L					-	-	-	-
	pH	pH					-	-	-	-
	Total organic carbon	mg/L					-	-	-	-
	TSS	mg/L		-	-	-	-	-	-	-



## Rocgen Coal Mine- Monthly Monitoring Summary

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Month	Date(s) Sampled	Date(s) Obtained	Min Value	Mean Value	Median Value	Max or Only Value
14	Conductivity	µS/cm	Special Frequency 2**				-	-	-	-
	Oil & Grease	mg/L					-	-	-	-
	pH	pH					-	-	-	-
	Total organic carbon	mg/L					-	-	-	-
15	TSS	mg/L	Special Frequency 2**	-	-	-	-	-	-	-
	Conductivity	µS/cm					-	-	-	-
	Oil & Grease	mg/L					-	-	-	-
	pH	pH					-	-	-	-
	Total organic carbon	mg/L					-	-	-	-

**Table 2 - Pollutant Limits Apply**

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Month	Date(s) Sampled	Date(s) Obtained	Min Value	Max or Only Value	100%ile Limit	Exceedance (Yes/No)	Comments
11	TSS	mg/L	Special Frequency 1*	0	-	-	-	-	-	-	-
	Oil & Grease	mg/L					-	-	-	-	
	pH	pH					-	-	-	-	
12	TSS	mg/L	Special Frequency 1*	0	-	-	-	-	-	-	-
	Oil & Grease	mg/L					-	-	-	-	
	pH	pH					-	-	-	-	

\* Special Frequency 1 means the collection of samples as soon as practicable after each discharge commences and in any case not more than 12 hours after each discharge commences.

\*\* Special Frequency 2 means collection of samples quarterly (in the event of flow during the quarter) at a time when there is flow and as soon as practicable after each wet weather discharge from points 11 and 12 commences and in any case not more than 12 hours after each discharge commences.



Rocgen Coal Mine- Monthly Monitoring Summary

Table 3 – Monitoring (Quarterly & Yearly – No Limits apply)

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Month	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max Value/Only Value
16	Aluminium	mg/L	Yearly	0	-	-	-	-	-	-
	Arsenic	mg/L					-	-	-	-
	Bicarbonate	mg/L					-	-	-	-
	Chloride	mg/L					-	-	-	-
	Iron	mg/L					-	-	-	-
	Manganese	mg/L					-	-	-	-
	Sodium	mg/L					-	-	-	-
16	Conductivity	µS/cm	Quarterly	0	-	-	-	-	-	-
	Oil & Grease	mg/L					-	-	-	-
	pH	pH					-	-	-	-
	TOC	mg/L					-	-	-	-
	TSS	mg/L					-	-	-	-



# WHITEHAVEN COAL

**Rocglen Coal Mine- Monthly Monitoring Summary**  
**Table 4 – Monitoring (Noise – Limits Apply)**

EPL ID	Date	Start Time	Period (mins)	Measured Levels – dB(A) Leq 15min Day	Measured Levels – dB(A) Leq 15min Evening	Measured Levels – dB(A) Leq 15min Night	Measured Levels – dB(A) LA 1min Night	Limits	Wind speed (m/s) /direction	Compliant (Y/N)	Comments
N1	-	-	-					35 dB(A) Leq (15 min) Day, Evening, Night  45dB(A) LA (1 min) Night	-	-	
		-	-						-	-	
		-	-						-	-	
		-	-						-	-	
	-	-					-		-		
	-	-					-		-		
	-	-					-		-		
	-	-					-		-		
	-	-					-		-		
	-	-					-		-		
	-	-					-		-		
	-	-					-		-		
N2	-	-	-					35 dB(A) Leq (15 min) Day, Evening, Night  45dB(A) LA (1 min) Night	-	-	
		-	-						-	-	
		-	-						-	-	
		-	-						-	-	
	-	-					-		-		
	-	-					-		-		
	-	-					-		-		
	-	-					-		-		
	-	-					-		-		
	-	-					-		-		
	-	-					-		-		
	-	-					-		-		

-Note: Measured noise levels refer to noise attributable to Rocglen Coal Mine



# WHITEHAVEN COAL

**Rocglen Coal Mine- Monthly Monitoring Summary**  
**Table 5 – Monitoring (Blasts – Limits Apply)**

EPL ID	Parameter	Units of Measure	Frequency	No. of Blasts for the Month	Average Value	Max or Only Value	100%ile Limit	(Potential) Non-compliance /breach
BB1	Blast Noise	dB (Lin Peak)	Every Blast	3	104.7	111.8	120	No
	Blast Vibration	mm/s	Every Blast		0.06	0.11	10	No
BB3	Blast Noise	dB (Lin Peak)	Every Blast	3	110.6	113.0	120	No
	Blast Vibration	mm/s	Every Blast		0.25	0.54	10	No



## Rocgen Coal Mine- Monthly Monitoring Summary

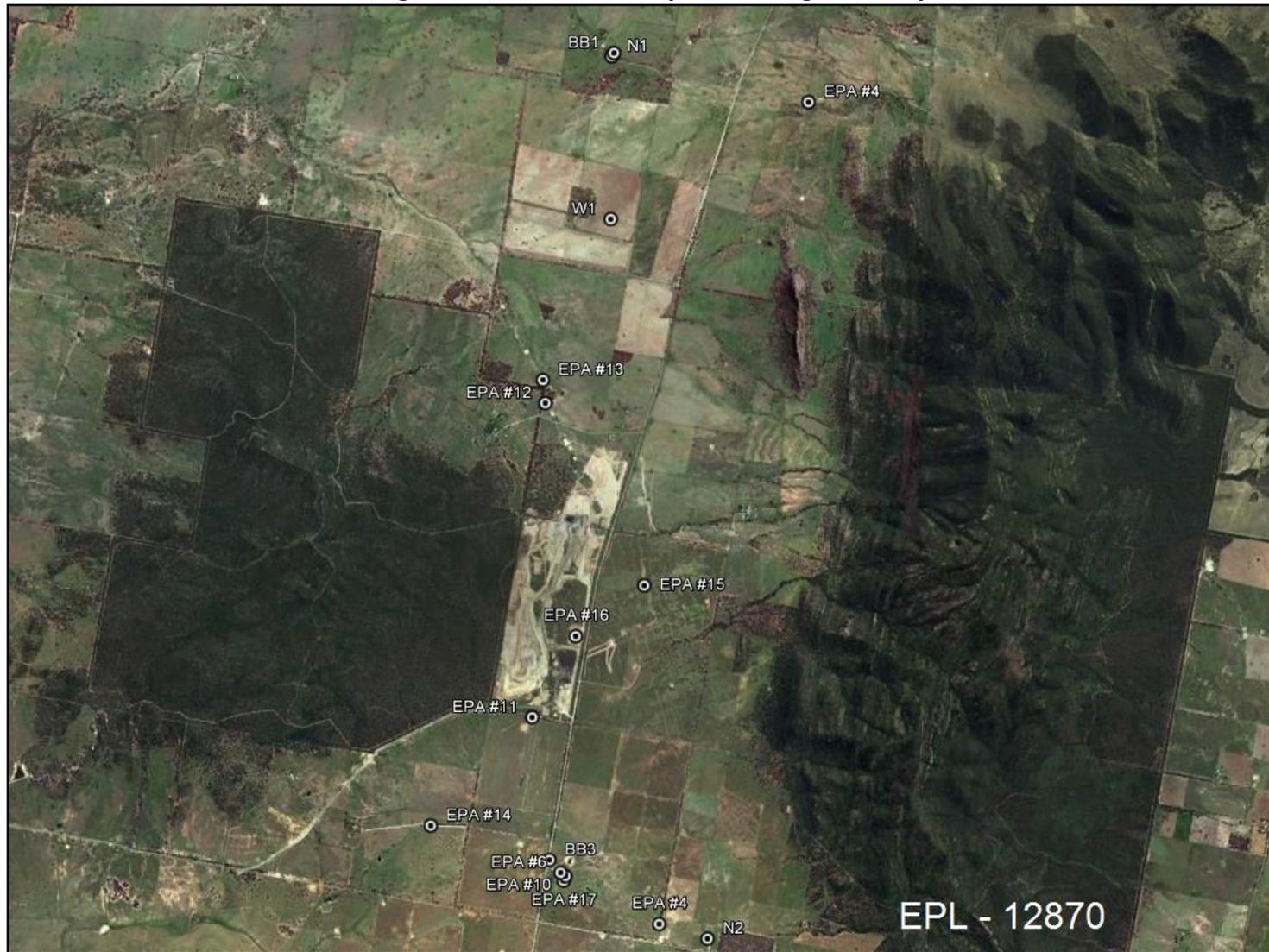


Figure 1 – EPL 12870 Monitoring Locations



## Rocglen Coal Mine- Monthly Monitoring Summary

### Site Information

**EPL No:** 12870

**EPA Website Link:** <http://epa.nsw.gov.au/prpoeoapp/ViewPOEOLicence.aspx?DOCID=40278&SYSUID=1&LICID=12870>

**Licensee:** Whitehaven Coal Mining Pty Ltd

**Licensee Address:** Rocglen Coal Mine, Wean Road, GUNNEDAH NSW 2380

**EPL Monitoring Points:** See Figure 1 below

**Sampling Period:** February 2016

**Obtained Date:** 7<sup>th</sup> April 2016

**Publication Date:** 11<sup>th</sup> April 2016

**Table 1 - No Pollutant Limits Apply**

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Month	Date(s) Sampled	Date(s) Obtained	Min Value	Mean Value	Median Value	Max or Only Value
4	Particulates-Deposited Matter	g/m <sup>2</sup> /month	Continuous	1	21/03/16	31/03/16	-	-	-	2.4
6	Particulates-Deposited Matter	g/m <sup>2</sup> /month	Continuous	1	21/03/16	31/03/16	-	-	-	1.7
7	Particulates-Deposited Matter	g/m <sup>2</sup> /month	Continuous	1	21/03/16	31/03/16	-	-	-	0.6
10	PM <sub>10</sub>	µg/m <sup>3</sup>	Every 6 days	6	Various	7/04/16	6.6	13.48	8.7	23.3
11	Conductivity	µS/cm	Special Frequency 1*	0	-	-	-	-	-	-
	Total organic carbon	mg/L					-	-	-	-
12	Conductivity	µS/cm	Special Frequency 1*	0	-	-	-	-	-	-
	Total organic carbon	mg/L					-	-	-	-
13	TSS	mg/L	Special Frequency 2**	0	-	-	-	-	-	-
	Conductivity	µS/cm					-	-	-	-
	Oil & Grease	mg/L					-	-	-	-
	pH	pH					-	-	-	-
	Total organic carbon	mg/L					-	-	-	-



# WHITEHAVEN COAL

## Rocgen Coal Mine- Monthly Monitoring Summary

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Month	Date(s) Sampled	Date(s) Obtained	Min Value	Mean Value	Median Value	Max or Only Value
14	TSS	mg/L	Special Frequency 2**	-	-	-	-	-	-	-
	Conductivity	µS/cm					-	-	-	-
	Oil & Grease	mg/L					-	-	-	-
	pH	pH					-	-	-	-
	Total organic carbon	mg/L					-	-	-	-
15	TSS	mg/L	Special Frequency 2**	-	-	-	-	-	-	-
	Conductivity	µS/cm					-	-	-	-
	Oil & Grease	mg/L					-	-	-	-
	pH	pH					-	-	-	-
	Total organic carbon	mg/L					-	-	-	-

Table 2 - Pollutant Limits Apply

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Month	Date(s) Sampled	Date(s) Obtained	Min Value	Max or Only Value	100%ile Limit	Exceedance (Yes/No)	Comments
11	TSS	mg/L	Special Frequency 1*	0	-	-	-	-	-	-	-
	Oil & Grease	mg/L					-	-	-	-	
	pH	pH					-	-	-	-	
12	TSS	mg/L	Special Frequency 1*	0	-	-	-	-	-	-	-
	Oil & Grease	mg/L					-	-	-	-	
	pH	pH					-	-	-	-	

\* Special Frequency 1 means the collection of samples as soon as practicable after each discharge commences and in any case not more than 12 hours after each discharge commences.

\*\* Special Frequency 2 means collection of samples quarterly (in the event of flow during the quarter) at a time when there is flow and as soon as practicable after each wet weather discharge from points 11 and 12 commences and in any case not more than 12 hours after each discharge commences.

## Rocgen Coal Mine- Monthly Monitoring Summary

**Table 3 – Monitoring (Quarterly & Yearly – No Limits apply)**

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Month	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max Value/Only Value
16	Aluminium	mg/L	Yearly	0	-	-	-	-	-	-
	Arsenic	mg/L					-	-	-	-
	Bicarbonate	mg/L					-	-	-	-
	Chloride	mg/L					-	-	-	-
	Iron	mg/L					-	-	-	-
	Manganese	mg/L					-	-	-	-
	Sodium	mg/L					-	-	-	-
16	Conductivity	µS/cm	Quarterly	1	1/03/16	29/03/16	-	-	-	2460
	Oil & Grease	mg/L					-	-	-	<5
	pH	pH					-	-	-	9.0
	TOC	mg/L					-	-	-	3
	TSS	mg/L					-	-	-	20



## Rocglen Coal Mine- Monthly Monitoring Summary

**Table 4 – Monitoring (Noise – Limits Apply)**

EPL ID	Date	Start Time	Period (mins)	Measured Levels – dB(A) Leq 15min Day	Measured Levels – dB(A) Leq 15min Evening	Measured Levels – dB(A) Leq 15min Night	Measured Levels – dB(A) LA 1min Night	Limits	Wind speed (m/s) /direction	Compliant (Y/N)	Comments
N1	1/03/16-2/03/16	3:50pm	15	<20				35 dB(A) Leq (15 min) Day, Evening, Night  45dB(A) LA (1 min) Night	1.8/235	Y	
		9:24pm	15		<20				5.3/118	Y	
		1:02am	15			<20			3.2/37	Y	
		1:02am	1				<20		3.2/37	Y	
	2/03/16	9:00am	15	<20					1.4/249	Y	
		8:30pm	15		<20				3.9/115	Y	
		10:01pm	15			<20			5.4/68	Y	
		10:01pm	1				<20		5.4/68	Y	
	3/03/16	9:13am	15	21					1.5/207	Y	
		9:15pm	15		<20				4.7/70	Y	
		11:15pm	15			<20			3.7/50	Y	
		11:15pm	1				<20		3.7/50	Y	
N2	1/03/16	2:05pm	15	<20				35 dB(A) Leq (15 min) Day, Evening, Night  45dB(A) LA (1 min) Night	2.0/154	Y	
		8:38pm	15		<20				3.9/111	Y	
		11:42pm	15			<20			4.3/54	Y	
		11:42pm	1				<20		4.3/54	Y	
	2/03/16	7:15am	15	33					0.8/143	Y	
		9:13pm	15		23				4.6/103	Y	
		11:14pm	15			<20			4.8/43	Y	
		11:14pm	1				<20		4.8/43	Y	
	3/03/16	7:21am	15	31					2.3/162	Y	
		8:29pm	15		<20				6.0/74	Y	
		10:01pm	15			<20			3.9/76	Y	
		10:01pm	1				<20		3.9/76	Y	

-Note: Measured noise levels refer to noise attributable to Rocglen Coal Mine



# WHITEHAVEN COAL

**Rocglen Coal Mine- Monthly Monitoring Summary**  
**Table 5 – Monitoring (Blasts – Limits Apply)**

EPL ID	Parameter	Units of Measure	Frequency	No. of Blasts for the Month	Average Value	Max or Only Value	100%ile Limit	(Potential) Non-compliance /breach
BB1	Blast Noise	dB (Lin Peak)	Every Blast	5	94.9	97.8	120	No
	Blast Vibration	mm/s	Every Blast		0.1	0.14	10	No
BB3	Blast Noise	dB (Lin Peak)	Every Blast	5	103.8	105.8	120	No
	Blast Vibration	mm/s	Every Blast		0.26	0.4	10	No



## Rocgen Coal Mine- Monthly Monitoring Summary



Figure 1 – EPL 12870 Monitoring Locations



## Rocglen Coal Mine- Monthly Monitoring Summary

### Site Information

**EPL No:** 12870

**EPA Website Link:** <http://epa.nsw.gov.au/prpoeoapp/ViewPOEOLicence.aspx?DOCID=40278&SYSUID=1&LICID=12870>

**Licensee:** Whitehaven Coal Mining Pty Ltd

**Licensee Address:** Rocglen Coal Mine, Wean Road, GUNNEDAH NSW 2380

**EPL Monitoring Points:** See Figure 1 below

**Sampling Period:** April

**Obtained Date:** 11<sup>th</sup> May 2016

**Publication Date:** 16<sup>th</sup> May 2016

**Table 1 - No Pollutant Limits Apply**

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Month	Date(s) Sampled	Date(s) Obtained	Min Value	Mean Value	Median Value	Max or Only Value
4	Particulates-Deposited Matter	g/m <sup>2</sup> /month	Continuous	1	21/04/16	29/04/16	-	-	-	0.4
6	Particulates-Deposited Matter	g/m <sup>2</sup> /month	Continuous	1	21/04/16	29/04/16	-	-	-	1.1
7	Particulates-Deposited Matter	g/m <sup>2</sup> /month	Continuous	1	21/04/16	29/04/16	-	-	-	0.9
10	PM <sub>10</sub>	µg/m <sup>3</sup>	Every 6 days	6	Various	11/05/16	8.3	14.9	13.2	22.9
11	Conductivity	µS/cm	Special Frequency 1*	0	-	-	-	-	-	-
	Total organic carbon	mg/L					-	-	-	-
12	Conductivity	µS/cm	Special Frequency 1*	0	-	-	-	-	-	-
	Total organic carbon	mg/L					-	-	-	-
13	TSS	mg/L	Special Frequency 2**	0	-	-	-	-	-	-
	Conductivity	µS/cm					-	-	-	-
	Oil & Grease	mg/L					-	-	-	-
	pH	pH					-	-	-	-
	Total organic carbon	mg/L					-	-	-	-



# WHITEHAVEN COAL

## Rocgen Coal Mine- Monthly Monitoring Summary

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Month	Date(s) Sampled	Date(s) Obtained	Min Value	Mean Value	Median Value	Max or Only Value
14	TSS	mg/L	Special Frequency 2**	-	-	-	-	-	-	-
	Conductivity	µS/cm					-	-	-	-
	Oil & Grease	mg/L					-	-	-	-
	pH	pH					-	-	-	-
	Total organic carbon	mg/L					-	-	-	-
15	TSS	mg/L	Special Frequency 2**	-	-	-	-	-	-	-
	Conductivity	µS/cm					-	-	-	-
	Oil & Grease	mg/L					-	-	-	-
	pH	pH					-	-	-	-
	Total organic carbon	mg/L					-	-	-	-

Table 2 - Pollutant Limits Apply

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Month	Date(s) Sampled	Date(s) Obtained	Min Value	Max or Only Value	100%ile Limit	Exceedance (Yes/No)	Comments
11	TSS	mg/L	Special Frequency 1*	0	-	-	-	-	-	-	-
	Oil & Grease	mg/L					-	-	-	-	
	pH	pH					-	-	-	-	
12	TSS	mg/L	Special Frequency 1*	0	-	-	-	-	-	-	-
	Oil & Grease	mg/L					-	-	-	-	
	pH	pH					-	-	-	-	

\* Special Frequency 1 means the collection of samples as soon as practicable after each discharge commences and in any case not more than 12 hours after each discharge commences.

\*\* Special Frequency 2 means collection of samples quarterly (in the event of flow during the quarter) at a time when there is flow and as soon as practicable after each wet weather discharge from points 11 and 12 commences and in any case not more than 12 hours after each discharge commences.

## Rocgen Coal Mine- Monthly Monitoring Summary

**Table 3 – Monitoring (Quarterly & Yearly – No Limits apply)**

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Month	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max Value/Only Value
16	Aluminium	mg/L	Yearly	0	-	-	-	-	-	-
	Arsenic	mg/L					-	-	-	-
	Bicarbonate	mg/L					-	-	-	-
	Chloride	mg/L					-	-	-	-
	Iron	mg/L					-	-	-	-
	Manganese	mg/L					-	-	-	-
	Sodium	mg/L					-	-	-	-
16	Conductivity	µS/cm	Quarterly	0	-	-	-	-	-	-
	Oil & Grease	mg/L					-	-	-	-
	pH	pH					-	-	-	-
	TOC	mg/L					-	-	-	-
	TSS	mg/L					-	-	-	-



## Rocglen Coal Mine- Monthly Monitoring Summary

**Table 4 – Monitoring (Noise – Limits Apply)**

EPL ID	Date	Start Time	Period (mins)	Measured Levels – dB(A) Leq 15min Day	Measured Levels – dB(A) Leq 15min Evening	Measured Levels – dB(A) Leq 15min Night	Measured Levels – dB(A) LA 1min Night	Limits	Wind speed (m/s) /direction	Compliant (Y/N)	Comments	
N1	-	-	-	-				35 dB(A) Leq (15 min) Day, Evening, Night  45dB(A) LA (1 min) Night	-	-		
		-	-		-		-		-			
		-	-			-			-	-		
		-	-				-		-	-		
	-	-	-	-						-		-
		-	-		-				-	-		
		-	-			-			-	-		
		-	-				-		-	-		
	-	-	-	-						-		-
		-	-		-				-	-		
		-	-			-			-	-		
		-	-				-		-	-		
N2	-	-	-	-				35 dB(A) Leq (15 min) Day, Evening, Night  45dB(A) LA (1 min) Night	-	-		
		-	-		-		-		-			
		-	-			-			-	-		
		-	-				-		-	-		
	-	-	-	-						-		-
		-	-		-				-	-		
		-	-			-			-	-		
		-	-				-		-	-		
	-	-	-	-						-		-
		-	-		-				-	-		
		-	-			-			-	-		
		-	-				-		-	-		

-Note: Measured noise levels refer to noise attributable to Rocglen Coal Mine



# WHITEHAVEN COAL

**Rocglen Coal Mine- Monthly Monitoring Summary**  
**Table 5 – Monitoring (Blasts – Limits Apply)**

EPL ID	Parameter	Units of Measure	Frequency	No. of Blasts for the Month	Average Value	Max or Only Value	100%ile Limit	(Potential) Non-compliance /breach
BB1	Blast Noise	dB (Lin Peak)	Every Blast	4	98.3	100.7	120	No
	Blast Vibration	mm/s	Every Blast		0.1	0.18	10	No
BB3	Blast Noise	dB (Lin Peak)	Every Blast	4	103.4	110.7	120	No
	Blast Vibration	mm/s	Every Blast		0.28	0.41	10	No



## Rocgen Coal Mine- Monthly Monitoring Summary



Figure 1 – EPL 12870 Monitoring Locations



## Rocglen Coal Mine- Monthly Monitoring Summary

### Site Information

**EPL No:** 12870

**EPA Website Link:** <http://epa.nsw.gov.au/prpoeoapp/ViewPOEOLicence.aspx?DOCID=40278&SYSUID=1&LICID=12870>

**Licensee:** Whitehaven Coal Mining Pty Ltd

**Licensee Address:** Rocglen Coal Mine, Wean Road, GUNNEDAH NSW 2380

**EPL Monitoring Points:** See Figure 1 below

**Sampling Period:** May 2016

**Obtained Date:** 10<sup>th</sup> June 2016

**Publication Date:** 21<sup>st</sup> June 2016

**Table 1 - No Pollutant Limits Apply**

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Month	Date(s) Sampled	Date(s) Obtained	Min Value	Mean Value	Median Value	Max or Only Value
4	Particulates-Deposited Matter	g/m <sup>2</sup> /month	Continuous	1	20-05-16	27-05-16	-	-	-	0.5
6	Particulates-Deposited Matter	g/m <sup>2</sup> /month	Continuous	1	20-05-16	27-05-16	-	-	-	0.5
7	Particulates-Deposited Matter	g/m <sup>2</sup> /month	Continuous	1	20-05-16	27-05-16	-	-	-	0.7
10	PM <sub>10</sub>	µg/m <sup>3</sup>	Every 6 days	6	Various	10-06-16	0.6	9.6	6.7	23.5
11	Conductivity	µS/cm	Special Frequency 1*	0	-	-	-	-	-	-
	Total organic carbon	mg/L					-	-	-	-
12	Conductivity	µS/cm	Special Frequency 1*	0	-	-	-	-	-	-
	Total organic carbon	mg/L					-	-	-	-
13	TSS	mg/L	Special Frequency 2**	0	-	-	-	-	-	-
	Conductivity	µS/cm					-	-	-	-
	Oil & Grease	mg/L					-	-	-	-
	pH	pH					-	-	-	-
	Total organic carbon	mg/L					-	-	-	-



# WHITEHAVEN COAL

## Rocgen Coal Mine- Monthly Monitoring Summary

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Month	Date(s) Sampled	Date(s) Obtained	Min Value	Mean Value	Median Value	Max or Only Value
14	TSS	mg/L	Special Frequency 2**	-	-	-	-	-	-	-
	Conductivity	µS/cm					-	-	-	-
	Oil & Grease	mg/L					-	-	-	-
	pH	pH					-	-	-	-
	Total organic carbon	mg/L					-	-	-	-
15	TSS	mg/L	Special Frequency 2**	-	-	-	-	-	-	-
	Conductivity	µS/cm					-	-	-	-
	Oil & Grease	mg/L					-	-	-	-
	pH	pH					-	-	-	-
	Total organic carbon	mg/L					-	-	-	-

Table 2 - Pollutant Limits Apply

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Month	Date(s) Sampled	Date(s) Obtained	Min Value	Max or Only Value	100%ile Limit	Exceedance (Yes/No)	Comments
11	TSS	mg/L	Special Frequency 1*	0	-	-	-	-	-	-	-
	Oil & Grease	mg/L					-	-	-	-	
	pH	pH					-	-	-	-	
12	TSS	mg/L	Special Frequency 1*	0	-	-	-	-	-	-	-
	Oil & Grease	mg/L					-	-	-	-	
	pH	pH					-	-	-	-	

\* Special Frequency 1 means the collection of samples as soon as practicable after each discharge commences and in any case not more than 12 hours after each discharge commences.

\*\* Special Frequency 2 means collection of samples quarterly (in the event of flow during the quarter) at a time when there is flow and as soon as practicable after each wet weather discharge from points 11 and 12 commences and in any case not more than 12 hours after each discharge commences.



# WHITEHAVEN COAL

## Rocgen Coal Mine- Monthly Monitoring Summary

Table 3 – Monitoring (Quarterly & Yearly – No Limits apply)

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Month	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max Value/Only Value
16	Aluminium	mg/L	Yearly	0	-	-	-	-	-	0.48
	Arsenic	mg/L					-	-	-	0.010
	Bicarbonate	mg/L					-	-	-	327
	Chloride	mg/L					-	-	-	459
	Iron	mg/L					-	-	-	0.27
	Manganese	mg/L					-	-	-	0.016
	Sodium	mg/L					-	-	-	554
16	Conductivity	µS/cm	Quarterly	0	-	-	-	-	-	3150
	Oil & Grease	mg/L					-	-	-	9
	pH	pH					-	-	-	9.1
	TOC	mg/L					-	-	-	20
	TSS	mg/L					-	-	-	22



## Rocglen Coal Mine- Monthly Monitoring Summary

**Table 4 – Monitoring (Noise – Limits Apply)**

EPL ID	Date	Start Time	Period (mins)	Measured Levels – dB(A) Leq 15min Day	Measured Levels – dB(A) Leq 15min Evening	Measured Levels – dB(A) Leq 15min Night	Measured Levels – dB(A) LA 1min Night	Limits	Wind speed (m/s) /direction	Compliant (Y/N)	Comments	
N1	-	-	-	-				35 dB(A) Leq (15 min) Day, Evening, Night  45dB(A) LA (1 min) Night	-	-		
		-	-		-				-	-		
		-	-			-			-	-		
		-	-				-		-	-		
	-	-	-	-						-		-
		-	-		-					-		-
		-	-			-				-		-
		-	-				-			-		-
	-	-	-	-						-		-
		-	-		-					-		-
		-	-			-				-		-
		-	-				-			-		-
N2	-	-	-	-				35 dB(A) Leq (15 min) Day, Evening, Night  45dB(A) LA (1 min) Night	-	-		
		-	-		-				-	-		
		-	-			-			-	-		
		-	-				-		-	-		
	-	-	-	-						-		-
		-	-		-					-		-
		-	-			-				-		-
		-	-				-			-		-
	-	-	-	-						-		-
		-	-		-					-		-
		-	-			-				-		-
		-	-				-			-		-

-Note: Measured noise levels refer to noise attributable to Rocglen Coal Mine



# WHITEHAVEN COAL

**Rocglen Coal Mine- Monthly Monitoring Summary**  
**Table 5 – Monitoring (Blasts – Limits Apply)**

EPL ID	Parameter	Units of Measure	Frequency	No. of Blasts for the Month	Average Value	Max or Only Value	100%ile Limit	(Potential) Non-compliance /breach
BB1	Blast Noise	dB (Lin Peak)	Every Blast	4	105.5	123.6	120	No
	Blast Vibration	mm/s	Every Blast		0.36	0.79	10	No
BB3	Blast Noise	dB (Lin Peak)	Every Blast	4	97.7	103.7	120	Yes
	Blast Vibration	mm/s	Every Blast		0.16	0.37	10	No



# WHITEHAVEN COAL

## Rocgen Coal Mine- Monthly Monitoring Summary

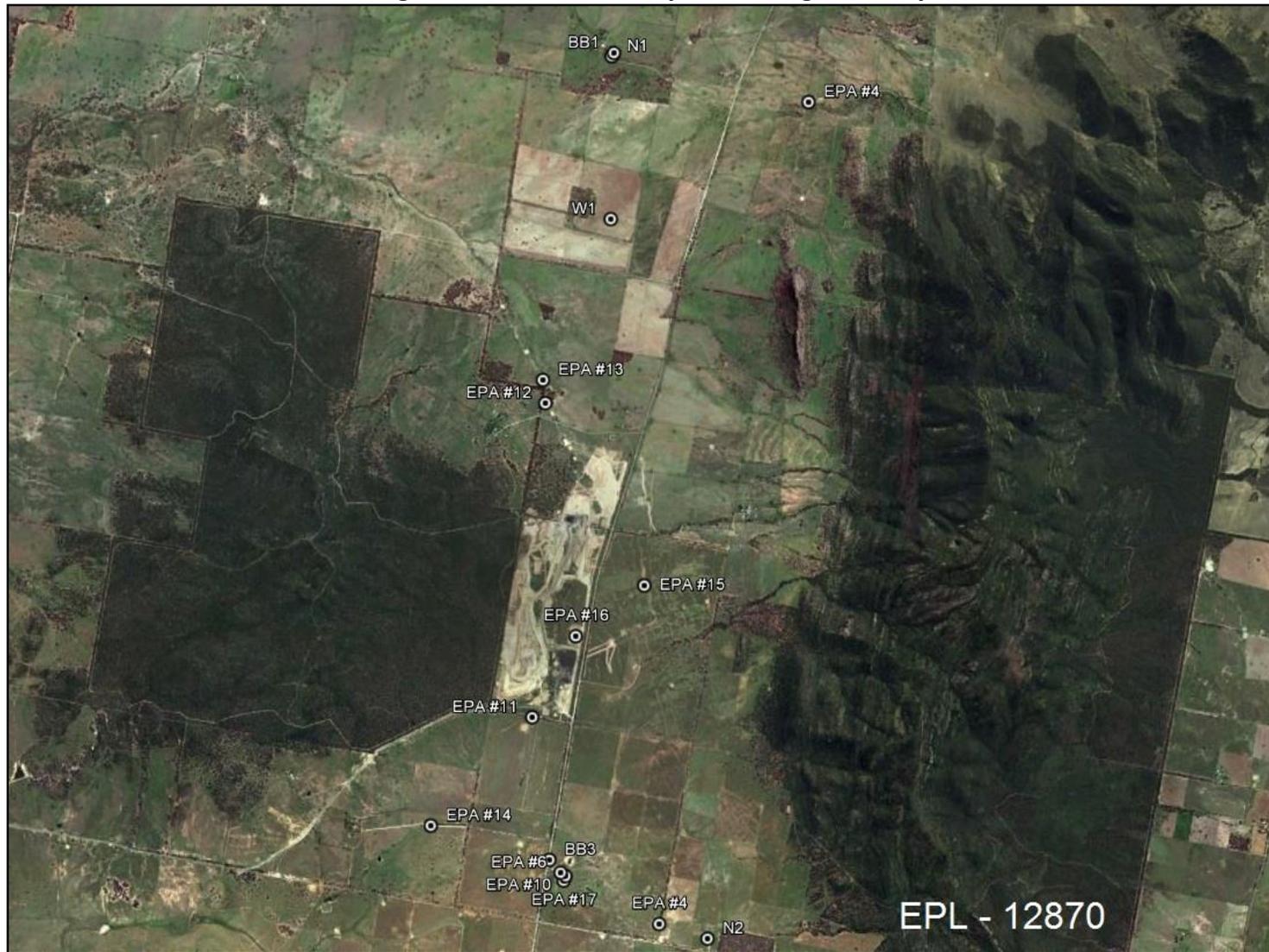


Figure 1 – EPL 12870 Monitoring Locations



## Rocglen Coal Mine- Monthly Monitoring Summary

### Site Information

**EPL No:** 12870

**EPA Website Link:** <http://epa.nsw.gov.au/prpoeoapp/ViewPOEOLicence.aspx?DOCID=40278&SYSUID=1&LICID=12870>

**Licensee:** Whitehaven Coal Mining Pty Ltd

**Licensee Address:** Rocglen Coal Mine, Wean Road, GUNNEDAH NSW 2380

**EPL Monitoring Points:** See Figure 1 below

**Sampling Period:** June 2016

**Obtained Date:** 8<sup>th</sup> July 2016

**Publication Date:** 14<sup>th</sup> July 2016

**Table 1 - No Pollutant Limits Apply**

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Month	Date(s) Sampled	Date(s) Obtained	Min Value	Mean Value	Median Value	Max or Only Value
4	Particulates-Deposited Matter	g/m <sup>2</sup> /month	Continuous	1	17/16/16	27/06/16	-	-	-	0.4
6	Particulates-Deposited Matter	g/m <sup>2</sup> /month	Continuous	1	17/06/16	27/06/16	-	-	-	0.3
7	Particulates-Deposited Matter	g/m <sup>2</sup> /month	Continuous	1	17/06/16	27/06/16	-	-	-	0.3
10	PM <sub>10</sub>	µg/m <sup>3</sup>	Every 6 days	6	Various	8/07/16	0.2	2.84	2.6	5.6
11	Conductivity	µS/cm	Special Frequency 1*	0	-	-	-	-	-	-
	Total organic carbon	mg/L					-	-	-	-
12	Conductivity	µS/cm	Special Frequency 1*	0	-	-	-	-	-	-
	Total organic carbon	mg/L					-	-	-	-
13	TSS	mg/L	Special Frequency 2**	0	-	-	-	-	-	-
	Conductivity	µS/cm					-	-	-	-
	Oil & Grease	mg/L					-	-	-	-
	pH	pH					-	-	-	-
	Total organic carbon	mg/L					-	-	-	-



# WHITEHAVEN COAL

## Rocgen Coal Mine- Monthly Monitoring Summary

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Month	Date(s) Sampled	Date(s) Obtained	Min Value	Mean Value	Median Value	Max or Only Value
14	TSS	mg/L	Special Frequency 2**	-	-	-	-	-	-	-
	Conductivity	µS/cm					-	-	-	-
	Oil & Grease	mg/L					-	-	-	-
	pH	pH					-	-	-	-
	Total organic carbon	mg/L					-	-	-	-
15	TSS	mg/L	Special Frequency 2**	-	-	-	-	-	-	-
	Conductivity	µS/cm					-	-	-	-
	Oil & Grease	mg/L					-	-	-	-
	pH	pH					-	-	-	-
	Total organic carbon	mg/L					-	-	-	-

Table 2 - Pollutant Limits Apply

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Month	Date(s) Sampled	Date(s) Obtained	Min Value	Max or Only Value	100%ile Limit	Exceedance (Yes/No)	Comments
11	TSS	mg/L	Special Frequency 1*	0	-	-	-	-	-	-	-
	Oil & Grease	mg/L					-	-	-	-	
	pH	pH					-	-	-	-	
12	TSS	mg/L	Special Frequency 1*	0	-	-	-	-	-	-	-
	Oil & Grease	mg/L					-	-	-	-	
	pH	pH					-	-	-	-	

\* Special Frequency 1 means the collection of samples as soon as practicable after each discharge commences and in any case not more than 12 hours after each discharge commences.

\*\* Special Frequency 2 means collection of samples quarterly (in the event of flow during the quarter) at a time when there is flow and as soon as practicable after each wet weather discharge from points 11 and 12 commences and in any case not more than 12 hours after each discharge commences.

**Rocgen Coal Mine- Monthly Monitoring Summary**
**Table 3 – Monitoring (Quarterly & Yearly – No Limits apply)**

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Month	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max Value/Only Value
16	Aluminium	mg/L	Yearly	0	-	-	-	-	-	-
	Arsenic	mg/L					-	-	-	-
	Bicarbonate	mg/L					-	-	-	-
	Chloride	mg/L					-	-	-	-
	Iron	mg/L					-	-	-	-
	Manganese	mg/L					-	-	-	-
	Sodium	mg/L					-	-	-	-
16	Conductivity	µS/cm	Quarterly	0	-	-	-	-	-	-
	Oil & Grease	mg/L					-	-	-	-
	pH	pH					-	-	-	-
	TOC	mg/L					-	-	-	-
	TSS	mg/L					-	-	-	-



## Rocglen Coal Mine- Monthly Monitoring Summary

**Table 4 – Monitoring (Noise – Limits Apply)**

EPL ID	Date	Start Time	Period (mins)	Measured Levels – dB(A) Leq 15min Day	Measured Levels – dB(A) Leq 15min Evening	Measured Levels – dB(A) Leq 15min Night	Measured Levels – dB(A) LA 1min Night	Limits	Wind speed (m/s) /direction	Compliant (Y/N)	Comments
N1	6/06/17	4:05pm	15	<20				35 dB(A) Leq (15 min) Day, Evening, Night  45dB(A) L <sub>A</sub> (1 min) Night	2.2/298	Y	
		9:14pm	15		<20				0.8/234	Y	
		11:16pm	15			<20			2.4/285	Y	
		11:16pm	1				<20		2.4/285	Y	
	7/06/16	8:58am	15	<20					3.7/304	Y	
		9:13pm	15		<20				1.0/221	Y	
		11:19pm	15			22			1.3/294	Y	
		11:19pm	1				25		1.3/294	Y	
	8/06/16-9/06/16	9:50am	15	23					2.2/286	Y	
		8:01pm	15		<20				2.5/53	Y	
		12:03am	15			<20			0.8/15	Y	
		12/03am	1				<20		0.8/15	Y	
N2	6/06/17	2:21pm	15	<20				35 dB(A) Leq (15 min) Day, Evening, Night  45dB(A) L <sub>A</sub> (1 min) Night	3.2/295	Y	
		8:29pm	15		31				1.0/355	Y	
		10:02pm	15			33			1.0/274	Y	
		10:02pm	1				38		1.0/274	Y	
	7/06/16	7:12am	15	33					1.4/27	Y	
		8:26am	15		30				2.1/302	Y	
		10:00pm	15			28			1.5/253	Y	
		10:00pm	1				34		1.5/253	Y	
	8/06/16	7:06am	15	25					0.7/232	Y	
		8:45pm	15		31				1.0/167	Y	
		10:47pm	15			27			1.0/117	Y	
		10:47pm	1				31		1.0/117	Y	

-Note: Measured noise levels refer to noise attributable to Rocglen Coal Mine



# WHITEHAVEN COAL

**Rocglen Coal Mine- Monthly Monitoring Summary**  
**Table 5 – Monitoring (Blasts – Limits Apply)**

EPL ID	Parameter	Units of Measure	Frequency	No. of Blasts for the Month	Average Value	Max or Only Value	100%ile Limit	(Potential) Non-compliance /breach
BB1	Blast Noise	dB (Lin Peak)	Every Blast	3	92.8	98.6	120	No
	Blast Vibration	mm/s	Every Blast		0.03	0.08	10	No
BB3	Blast Noise	dB (Lin Peak)	Every Blast	3	100.1	108.6	120	No
	Blast Vibration	mm/s	Every Blast		0.07	0.17	10	No



## Rocgen Coal Mine- Monthly Monitoring Summary

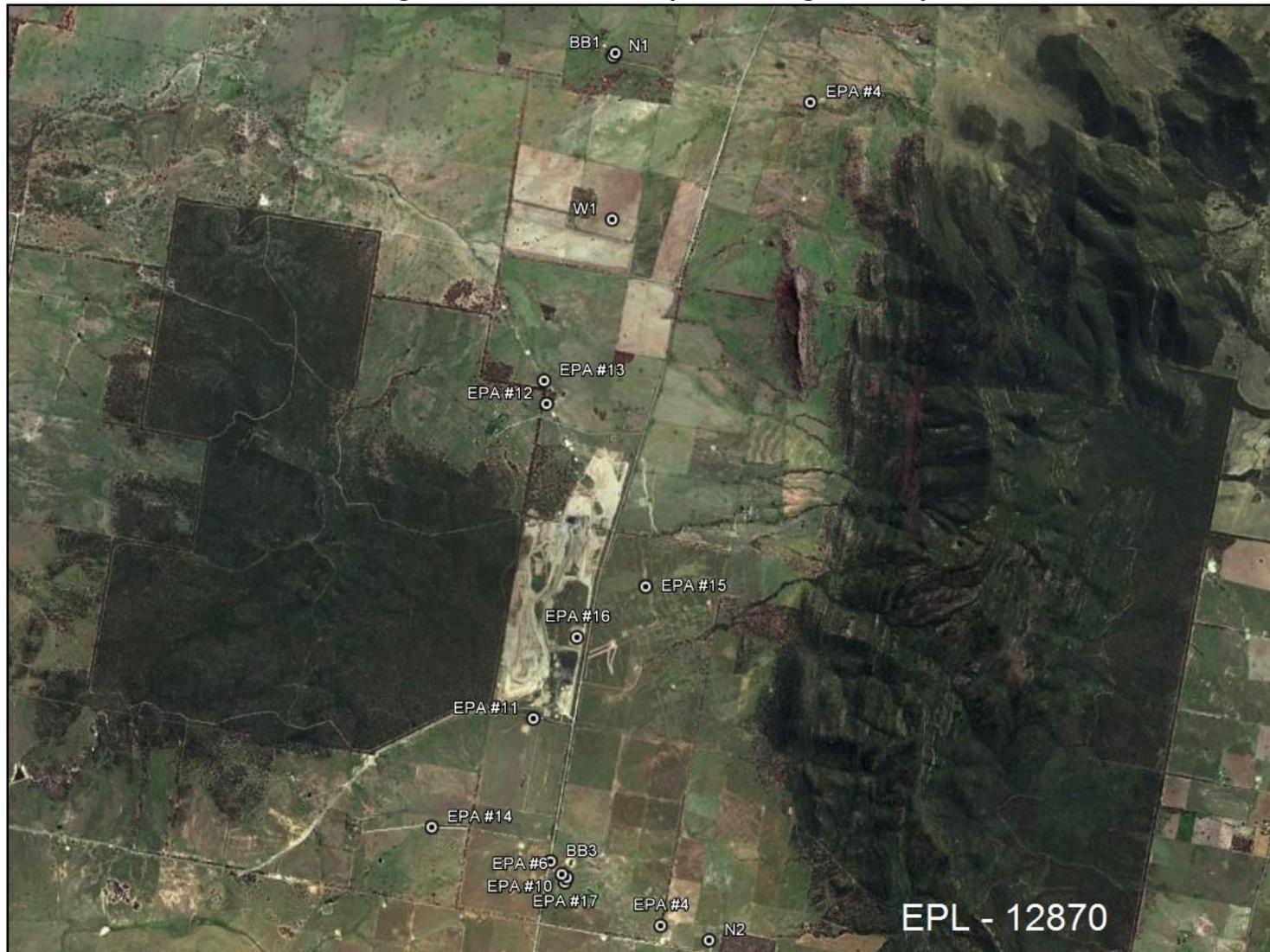


Figure 1 – EPL 12870 Monitoring Locations



## Rocglen Coal Mine- Monthly Monitoring Summary

### Site Information

**EPL No:** 12870

**EPA Website Link:** <http://epa.nsw.gov.au/prpoeoapp/ViewPOEOLicence.aspx?DOCID=40278&SYSUID=1&LICID=12870>

**Licensee:** Whitehaven Coal Mining Pty Ltd

**Licensee Address:** Rocglen Coal Mine, Wean Road, GUNNEDAH NSW 2380

**EPL Monitoring Points:** See Figure 1 below

**Sampling Period:** July 2016

**Obtained Date:** 9th August 2016

**Publication Date:** 10<sup>th</sup> August 2016

**Table 1 - No Pollutant Limits Apply**

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Month	Date(s) Sampled	Date(s) Obtained	Min Value	Mean Value	Median Value	Max or Only Value
4	Particulates-Deposited Matter	g/m <sup>2</sup> /month	Continuous	1	18-07-16	25-07-16	-	-	-	0.2
6	Particulates-Deposited Matter	g/m <sup>2</sup> /month	Continuous	1	18-07-16	25-07-16	-	-	-	0.1
7	Particulates-Deposited Matter	g/m <sup>2</sup> /month	Continuous	1	18-07-16	25-07-16	-	-	-	<0.1
10	PM <sub>10</sub>	µg/m <sup>3</sup>	Every 6 days	6	Various	09-08-16	2.1	4.4	2.8	7.4
11	Conductivity	µS/cm	Special Frequency 1*	0	-	-	-	-	-	-
	Total organic carbon	mg/L					-	-	-	-
12	Conductivity	µS/cm	Special Frequency 1*	0	-	-	-	-	-	-
	Total organic carbon	mg/L					-	-	-	-
13	TSS	mg/L	Special Frequency 2**	0	-	-	-	-	-	-
	Conductivity	µS/cm					-	-	-	-
	Oil & Grease	mg/L					-	-	-	-
	pH	pH					-	-	-	-
	Total organic carbon	mg/L					-	-	-	-



# WHITEHAVEN COAL

## Rocgen Coal Mine- Monthly Monitoring Summary

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Month	Date(s) Sampled	Date(s) Obtained	Min Value	Mean Value	Median Value	Max or Only Value
14	TSS	mg/L	Special Frequency 2**	-	-	-	-	-	-	-
	Conductivity	µS/cm					-	-	-	-
	Oil & Grease	mg/L					-	-	-	-
	pH	pH					-	-	-	-
	Total organic carbon	mg/L					-	-	-	-
15	TSS	mg/L	Special Frequency 2**	-	-	-	-	-	-	-
	Conductivity	µS/cm					-	-	-	-
	Oil & Grease	mg/L					-	-	-	-
	pH	pH					-	-	-	-
	Total organic carbon	mg/L					-	-	-	-

Table 2 - Pollutant Limits Apply

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Month	Date(s) Sampled	Date(s) Obtained	Min Value	Max or Only Value	100%ile Limit	Exceedance (Yes/No)	Comments
11	TSS	mg/L	Special Frequency 1*	0	-	-	-	-	-	-	-
	Oil & Grease	mg/L					-	-	-	-	
	pH	pH					-	-	-	-	
12	TSS	mg/L	Special Frequency 1*	0	-	-	-	-	-	-	-
	Oil & Grease	mg/L					-	-	-	-	
	pH	pH					-	-	-	-	

\* Special Frequency 1 means the collection of samples as soon as practicable after each discharge commences and in any case not more than 12 hours after each discharge commences.

\*\* Special Frequency 2 means collection of samples quarterly (in the event of flow during the quarter) at a time when there is flow and as soon as practicable after each wet weather discharge from points 11 and 12 commences and in any case not more than 12 hours after each discharge commences.

## Rocgen Coal Mine- Monthly Monitoring Summary

**Table 3 – Monitoring (Quarterly & Yearly – No Limits apply)**

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Month	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max Value/Only Value
16	Aluminium	mg/L	Yearly	0	-	-	-	-	-	-
	Arsenic	mg/L					-	-	-	-
	Bicarbonate	mg/L					-	-	-	-
	Chloride	mg/L					-	-	-	-
	Iron	mg/L					-	-	-	-
	Manganese	mg/L					-	-	-	-
	Sodium	mg/L					-	-	-	-
16	Conductivity	µS/cm	Quarterly	0	-	-	-	-	-	-
	Oil & Grease	mg/L					-	-	-	-
	pH	pH					-	-	-	-
	TOC	mg/L					-	-	-	-
	TSS	mg/L					-	-	-	-



## Rocglen Coal Mine- Monthly Monitoring Summary

**Table 4 – Monitoring (Noise – Limits Apply)**

EPL ID	Date	Start Time	Period (mins)	Measured Levels – dB(A) Leq 15min Day	Measured Levels – dB(A) Leq 15min Evening	Measured Levels – dB(A) Leq 15min Night	Measured Levels – dB(A) LA 1min Night	Limits	Wind speed (m/s) /direction	Compliant (Y/N)	Comments
N1	-	-	15	-				35 dB(A) Leq (15 min) Day, Evening, Night  45dB(A) L <sub>A</sub> (1 min) Night	-	-	
		-	15		-				-	-	
		-	15			-			-	-	
		-	1				-		-	-	
	-	15	-				-		-		
	-	15		-			-		-		
	-	15			-		-		-		
	-	1				-	-		-		
	-	15	-				-		-		
	-	15		-			-		-		
	-	15			-		-		-		
	-	1				-	-		-		
N2	-	-	15	-				35 dB(A) Leq (15 min) Day, Evening, Night  45dB(A) L <sub>A</sub> (1 min) Night	-	-	
		-	15		-				-	-	
		-	15			-			-	-	
		-	1				-		-	-	
	-	15	-				-		-		
	-	15		-			-		-		
	-	15			-		-		-		
	-	1				-	-		-		
	-	15	-				-		-		
	-	15		-			-		-		
	-	15			-		-		-		
	-	1				-	-		-		

-Note: Measured noise levels refer to noise attributable to Rocglen Coal Mine



# WHITEHAVEN COAL

**Rocglen Coal Mine- Monthly Monitoring Summary**  
**Table 5 – Monitoring (Blasts – Limits Apply)**

EPL ID	Parameter	Units of Measure	Frequency	No. of Blasts for the Month	Average Value	Max or Only Value	100%ile Limit	(Potential) Non-compliance /breach
BB1	Blast Noise	dB (Lin Peak)	Every Blast	4	97.4	99.8	120	No
	Blast Vibration	mm/s	Every Blast		0.14	0.24	10	No
BB3	Blast Noise	dB (Lin Peak)	Every Blast	4	106.7	114.4	120	No
	Blast Vibration	mm/s	Every Blast		0.22	0.61	10	No



## Rocgen Coal Mine- Monthly Monitoring Summary

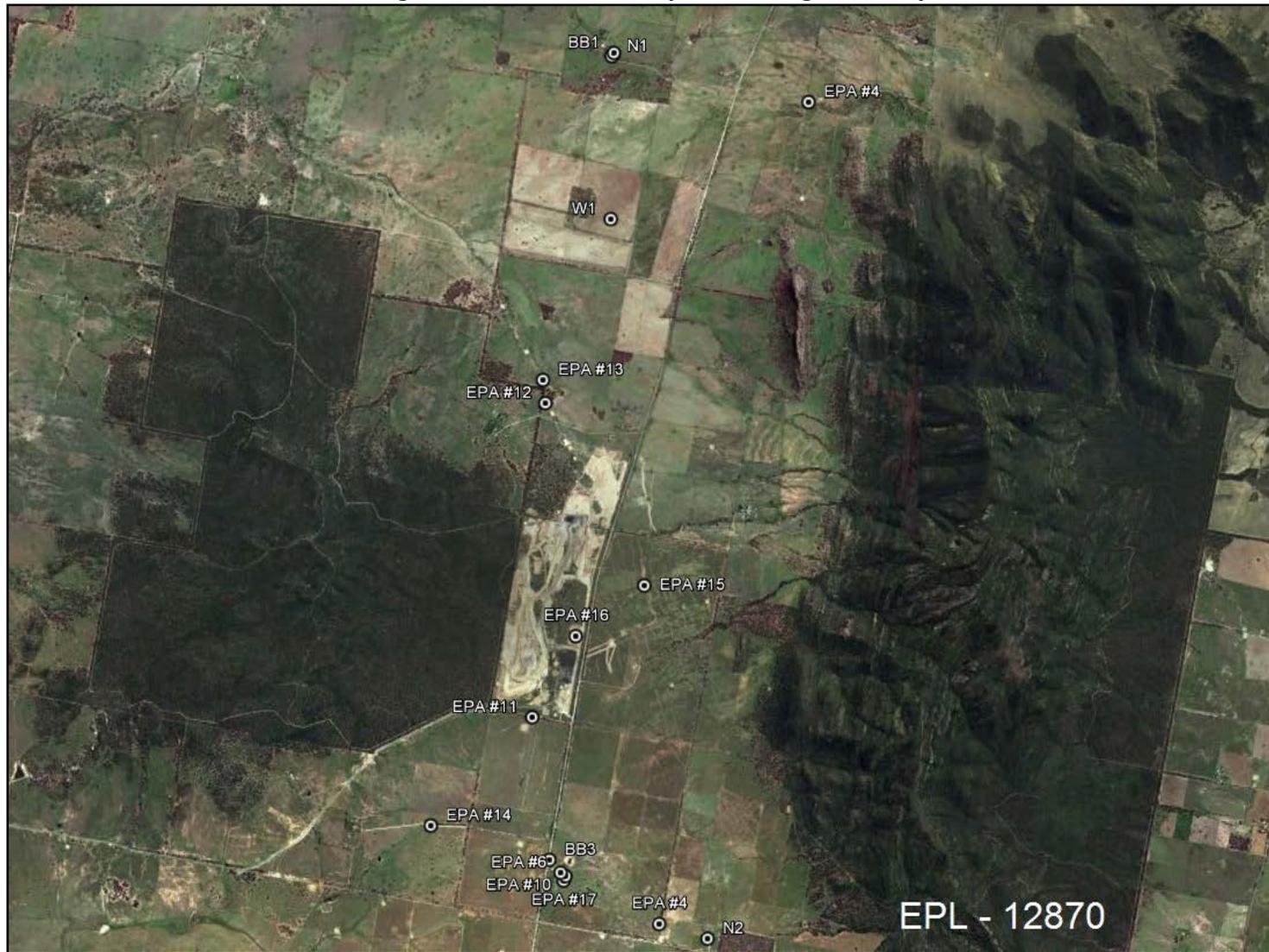


Figure 1 – EPL 12870 Monitoring Locations



## Rocglen Coal Mine- Monthly Monitoring Summary

### Site Information

**EPL No:** 12870

**EPA Website Link:** <http://epa.nsw.gov.au/prpoeoapp/ViewPOEOLicence.aspx?DOCID=40278&SYSUID=1&LICID=12870>

**Licensee:** Whitehaven Coal Mining Pty Ltd

**Licensee Address:** Rocglen Coal Mine, Wean Road, GUNNEDAH NSW 2380

**EPL Monitoring Points:** See Figure 1 below

**Sampling Period:** July 2016

**Obtained Date:** 15<sup>th</sup> September 2016

**Publication Date:** 19<sup>th</sup> September 2016

**Table 1 - No Pollutant Limits Apply**

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Month	Date(s) Sampled	Date(s) Obtained	Min Value	Mean Value	Median Value	Max or Only Value
4	Particulates-Deposited Matter	g/m <sup>2</sup> /month	Continuous	1	17/08/16	29/08/16	-	-	-	<0.1
6	Particulates-Deposited Matter	g/m <sup>2</sup> /month	Continuous	1	17/08/16	29/08/16	-	-	-	0.4
7	Particulates-Deposited Matter	g/m <sup>2</sup> /month	Continuous	1	17/08/16	29/08/16	-	-	-	0.2
10	PM <sub>10</sub>	µg/m <sup>3</sup>	Every 6 days	6	Various	15/09/16	2.2	4.7	3.4	8.8
11	Conductivity	µS/cm	Special Frequency 1*	3	Various	Various	269	339	301	447
	Total organic carbon	mg/L					3	3.3	3.5	4
12	Conductivity	µS/cm	Special Frequency 1*	5	Various	Various	218	246	257	277
	Total organic carbon	mg/L					<1	2.8	2.5	4
13	TSS	mg/L	Special Frequency 2**	0	-	-	-	-	-	-
	Conductivity	µS/cm					-	-	-	-
	Oil & Grease	mg/L					-	-	-	-
	pH	pH					-	-	-	-
	Total organic carbon	mg/L					-	-	-	-



## Rocgen Coal Mine- Monthly Monitoring Summary

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Month	Date(s) Sampled	Date(s) Obtained	Min Value	Mean Value	Median Value	Max or Only Value
14	TSS	mg/L	Special Frequency 2**	-	-	-	-	-	-	-
	Conductivity	µS/cm					-	-	-	-
	Oil & Grease	mg/L					-	-	-	-
	pH	pH					-	-	-	-
	Total organic carbon	mg/L					-	-	-	-
15	TSS	mg/L	Special Frequency 2**	-	-	-	-	-	-	-
	Conductivity	µS/cm					-	-	-	-
	Oil & Grease	mg/L					-	-	-	-
	pH	pH					-	-	-	-
	Total organic carbon	mg/L					-	-	-	-

Table 2 - Pollutant Limits Apply

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Month	Date(s) Sampled	Date(s) Obtained	Min Value	Max or Only Value	100%ile Limit	Exceedance (Yes/No)	Comments
11	TSS	mg/L	Special Frequency 1*	3	Various	Various	6	36	50	No	Controlled discharges following flocculant application
	Oil & Grease	mg/L					<5	<5	10	No	
	pH	pH					7.26	7.82	6.5-8.5	No	
12	TSS	mg/L	Special Frequency 1*	5	Various	Various	<5	18	50	No	Controlled discharges following flocculant application
	Oil & Grease	mg/L					<5	<5	10	No	
	pH	pH					8.02	8.2	6.5-8.5	No	

\* Special Frequency 1 means the collection of samples as soon as practicable after each discharge commences and in any case not more than 12 hours after each discharge commences.

\*\* Special Frequency 2 means collection of samples quarterly (in the event of flow during the quarter) at a time when there is flow and as soon as practicable after each wet weather discharge from points 11 and 12 commences and in any case not more than 12 hours after each discharge commences.

## Rocgen Coal Mine- Monthly Monitoring Summary

**Table 3 – Monitoring (Quarterly & Yearly – No Limits apply)**

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Month	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max Value/Only Value
16	Aluminium	mg/L	Yearly	-	-	-	-	-	-	-
	Arsenic	mg/L					-	-	-	-
	Bicarbonate	mg/L					-	-	-	-
	Chloride	mg/L					-	-	-	-
	Iron	mg/L					-	-	-	-
	Manganese	mg/L					-	-	-	-
	Sodium	mg/L					-	-	-	-
16	Conductivity	µS/cm	Quarterly	1	9/08/16	25/08/16	-	-	-	2690
	Oil & Grease	mg/L					-	-	-	<5
	pH	pH					-	-	-	9.10
	TOC	mg/L					-	-	-	3
	TSS	mg/L					-	-	-	<5

## Rocgen Coal Mine- Monthly Monitoring Summary

**Table 4 – Monitoring (Noise – Limits Apply)**

EPL ID	Date	Start Time	Period (mins)	Measured Levels – dB(A) <small>Leq 15min Day</small>	Measured Levels – dB(A) <small>Leq 15min Evening</small>	Measured Levels – dB(A) <small>Leq 15min Night</small>	Measured Levels – dB(A) <small>LA 1min Night</small>	Limits	Wind speed (m/s) /direction	Compliant (Y/N)	Comments	
N1	-	-	15	-				35 dB(A) Leq (15 min) Day, Evening, Night  45dB(A) L <sub>A</sub> (1 min) Night	-	-		
		-	15		-				-	-		
		-	15			-			-	-		
		-	1				-		-	-		
	-	15	-						-	-		
	-	15		-					-	-		
	-	15			-				-	-		
	-	1				-			-	-		
	-	15	-						-	-		
	-	15		-					-	-		
	-	15			-				-	-		
	-	1				-			-	-		
N2	-	-	15	-				35 dB(A) Leq (15 min) Day, Evening, Night  45dB(A) L <sub>A</sub> (1 min) Night	-	-		
		-	15		-				-	-		
		-	15			-				-		-
		-	1				-			-		-
	-	15	-						-	-		
	-	15		-					-	-		
	-	15			-				-	-		
	-	1				-			-	-		
	-	15	-						-	-		
	-	15		-					-	-		
	-	15			-				-	-		
	-	1				-			-	-		



**Rocglen Coal Mine- Monthly Monitoring Summary**

-Note: Measured noise levels refer to noise attributable to Rocglen Coal Mine

**Table 5 – Monitoring (Blasts – Limits Apply)**

EPL ID	Parameter	Units of Measure	Frequency	No. of Blasts for the Month	Average Value	Max or Only Value	100%ile Limit	(Potential) Non-compliance /breach
BB1	Blast Noise	dB (Lin Peak)	Every Blast	2	91.4	98.0	120	No
	Blast Vibration	mm/s	Every Blast		0.3	0.3	10	No
BB3	Blast Noise	dB (Lin Peak)	Every Blast	2	101.5	108.0	120	No
	Blast Vibration	mm/s	Every Blast		0.04	0.06	10	No



## Rocgen Coal Mine- Monthly Monitoring Summary

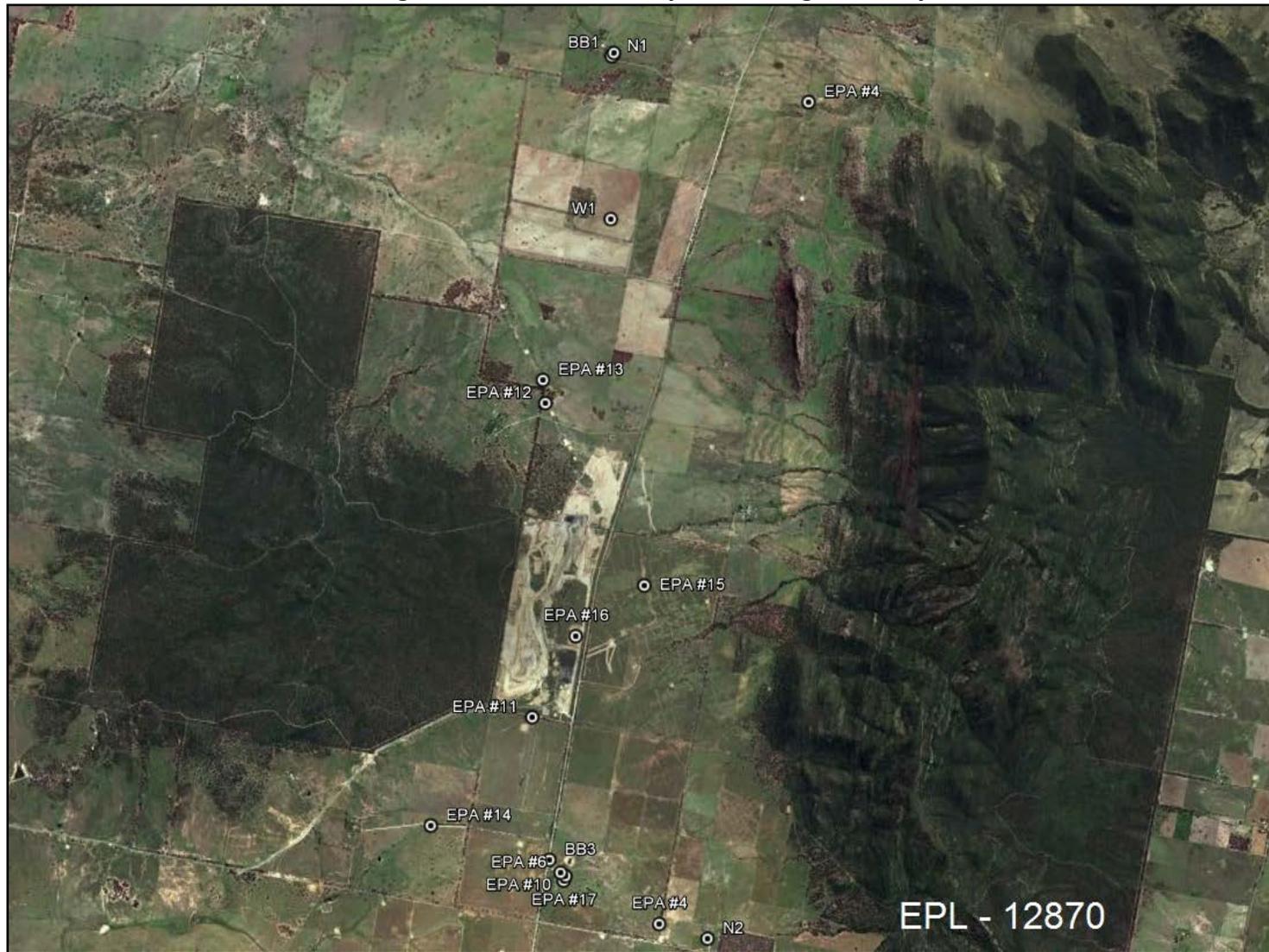


Figure 1 – EPL 12870 Monitoring Locations



## Rocglen Coal Mine- Monthly Monitoring Summary

### Site Information

**EPL No:** 12870

**EPA Website Link:** <http://epa.nsw.gov.au/prpoeoapp/ViewPOEOLicence.aspx?DOCID=40278&SYSUID=1&LICID=12870>

**Licensee:** Whitehaven Coal Mining Pty Ltd

**Licensee Address:** Rocglen Coal Mine, Wean Road, GUNNEDAH NSW 2380

**EPL Monitoring Points:** See Figure 1 below

**Sampling Period:** September 2016

**Obtained Date:** 10<sup>th</sup> October 2016

**Publication Date:** 17<sup>th</sup> October 2016

**Table 1 - No Pollutant Limits Apply**

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Month	Date(s) Sampled	Date(s) Obtained	Min Value	Mean Value	Median Value	Max or Only Value
4	Particulates-Deposited Matter	g/m <sup>2</sup> /month	Continuous	1	16/09/16	27/09/16	-	-	-	0.3
6	Particulates-Deposited Matter	g/m <sup>2</sup> /month	Continuous	1	16/09/16	27/09/16	-	-	-	0.3
7	Particulates-Deposited Matter	g/m <sup>2</sup> /month	Continuous	1	16/09/16	27/09/16	-	-	-	0.2
10	PM <sub>10</sub>	µg/m <sup>3</sup>	Every 6 days	6	Various	10/10/16	7.1	9.7	7.7	18.9
11	Conductivity	µS/cm	Special Frequency 1*	3	Various	Various	301	418.3	431	510
	Total organic carbon	mg/L					3	4.5	3.5	8
12	Conductivity	µS/cm	Special Frequency 1*	5	Various	Various	232	254.8	244.5	277
	Total organic carbon	mg/L								
13	TSS	mg/L	Special Frequency 2**	0	-	-	-	-	-	-
	Conductivity	µS/cm					-	-	-	-
	Oil & Grease	mg/L					-	-	-	-
	pH	pH					-	-	-	-
	Total organic carbon	mg/L					-	-	-	-



## Rocgen Coal Mine- Monthly Monitoring Summary

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Month	Date(s) Sampled	Date(s) Obtained	Min Value	Mean Value	Median Value	Max or Only Value
14	TSS	mg/L	Special Frequency 2**	1	16-09-16	23-09-16	-	-	-	<5
	Conductivity	µS/cm					-	-	-	131
	Oil & Grease	mg/L					-	-	-	<5
	pH	pH					-	-	-	7.2
	Total organic carbon	mg/L					-	-	-	13
15	TSS	mg/L	Special Frequency 2**	1	16-09-16	23-09-16	-	-	-	<5
	Conductivity	µS/cm					-	-	-	204
	Oil & Grease	mg/L					-	-	-	<5
	pH	pH					-	-	-	7.4
	Total organic carbon	mg/L					-	-	-	13

Table 2 - Pollutant Limits Apply

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Month	Date(s) Sampled	Date(s) Obtained	Min Value	Max or Only Value	100%ile Limit	Exceedance (Yes/No)	Comments
11	TSS	mg/L	Special Frequency 1*	4	Various	Various	6	30	50	No	Controlled discharges following flocculant application, with one uncontrolled discharge
	Oil & Grease	mg/L					<5	<5	10	No	
	pH	pH					7.26	8.2	6.5-8.5	No	
12	TSS	mg/L	Special Frequency 1*	5	Various	Various	9	47	50	No	Controlled discharges following flocculant application
	Oil & Grease	mg/L					<5	<5	10	No	
	pH	pH					7.95	8.07	6.5-8.5	No	

\* Special Frequency 1 means the collection of samples as soon as practicable after each discharge commences and in any case not more than 12 hours after each discharge commences.

### Rocgen Coal Mine- Monthly Monitoring Summary

\*\* Special Frequency 2 means collection of samples quarterly (in the event of flow during the quarter) at a time when there is flow and as soon as practicable after each wet weather discharge from points 11 and 12 commences and in any case not more than 12 hours after each discharge commences.

**Table 3 – Monitoring (Quarterly & Yearly – No Limits apply)**

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Month	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max Value/Only Value
16	Aluminium	mg/L	Yearly	-	-	-	-	-	-	-
	Arsenic	mg/L					-	-	-	-
	Bicarbonate	mg/L					-	-	-	-
	Chloride	mg/L					-	-	-	-
	Iron	mg/L					-	-	-	-
	Manganese	mg/L					-	-	-	-
	Sodium	mg/L					-	-	-	-
16	Conductivity	µS/cm	Quarterly	-	-	-	-	-	-	-
	Oil & Grease	mg/L					-	-	-	-
	pH	pH					-	-	-	-
	TOC	mg/L					-	-	-	-
	TSS	mg/L					-	-	-	-



## Rocgen Coal Mine- Monthly Monitoring Summary

**Table 4 – Monitoring (Noise – Limits Apply)**

EPL ID	Date	Start Time	Period (mins)	Measured Levels – dB(A) Leq 15min Day	Measured Levels – dB(A) Leq 15min Evening	Measured Levels – dB(A) Leq 15min Night	Measured Levels – dB(A) LA 1min Night	Limits	Wind speed (m/s) /direction	Compliant (Y/N)	Comments
N1	5-9-16	3:49pm	15	<20				35 dB(A) Leq (15 min) Day, Evening, Night  45dB(A) L <sub>A</sub> (1 min) Night	2.3/147	Y	One exceedance of the noise monitoring limits occurred at the Surrey property during the morning period on September 6 <sup>th</sup> .
		8:57pm	15		<20		1.3/34		Y		
		11:33pm	15			<20			1.2/201	Y	
		11:33pm	1				<20		1.2/201	Y	
	6-9-16	7:30am	15	39					1.2/188	N	
		8:56pm	15		20				1.3/32	Y	
		11:35pm	15			<20			3.0/45	Y	
		11:35pm	1				<20		3.0/45	Y	
	7-9-16 – 8-9-16	10:34am	15	<20					2.7/8	Y	
		7:48pm	15		<20				1.7/25	Y	
		12:34pm	15			<20			1.7/313	Y	
		12:34pm	1				<20		1.7/313	Y	
N2	5-9-16	1:46pm	15	<20				35 dB(A) Leq (15 min) Day, Evening, Night  45dB(A) L <sub>A</sub> (1 min) Night	1.7/157	Y	One exceedance of the noise monitoring limits occurred at the Surrey property during the morning period on September 6 <sup>th</sup> .
		8:15pm	15		<20		1.9/30		Y		
		10:03pm	15			30			1.5/36	Y	
		10:03pm	1				35		1.5/36	Y	
	6-9-16	9:34am	15	<20					1.6/165	Y	
		8:06pm			<20				1.3/229	Y	
		10:02pm	15			23			2.6/37	Y	
		10:02pm	1				26		2.6/37	Y	
	7-9-16	7:26am	15	32					4.2/33	Y	
		8:34pm	15		<20				2.2/51	Y	
		10:54pm	15			<20			2.7/7	Y	
		10:54pm	1				<20		2.7/7	Y	



# WHITEHAVEN COAL

## Rocglen Coal Mine- Monthly Monitoring Summary

-Note: Measured noise levels refer to noise attributable to Rocglen Coal Mine

**Table 5 – Monitoring (Blasts – Limits Apply)**

EPL ID	Parameter	Units of Measure	Frequency	No. of Blasts for the Month	Average Value	Max or Only Value	100%ile Limit	(Potential) Non-compliance /breach
BB1	Blast Noise	dB (Lin Peak)	Every Blast	3	93.2	99.3	120	No
	Blast Vibration	mm/s	Every Blast		0.2	0.29	10	No
BB3	Blast Noise	dB (Lin Peak)	Every Blast	3	99.4	112.1	120	No
	Blast Vibration	mm/s	Every Blast		0.31	0.54	10	No



## Rocgen Coal Mine- Monthly Monitoring Summary



Figure 1 – EPL 12870 Monitoring Locations



## Rocglen Coal Mine- Monthly Monitoring Summary

### Site Information

**EPL No:** 12870

**EPA Website Link:** <http://epa.nsw.gov.au/prpoeoapp/ViewPOEOLicence.aspx?DOCID=40278&SYSUID=1&LICID=12870>

**Licensee:** Whitehaven Coal Mining Pty Ltd

**Licensee Address:** Rocglen Coal Mine, Wean Road, GUNNEDAH NSW 2380

**EPL Monitoring Points:** See Figure 1 below

**Sampling Period:** October 2016

**Obtained Date:** 4<sup>th</sup> November 2016

**Publication Date:** 14<sup>th</sup> November 2016

**Table 1 - No Pollutant Limits Apply**

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Month	Date(s) Sampled	Date(s) Obtained	Min Value	Mean Value	Median Value	Max or Only Value
4	Particulates-Deposited Matter	g/m <sup>2</sup> /month	Continuous	1	17/10/16	24/10/16	-	-	-	0.4
6	Particulates-Deposited Matter	g/m <sup>2</sup> /month	Continuous	1	17/10/16	24/10/16	-	-	-	0.3
7	Particulates-Deposited Matter	g/m <sup>2</sup> /month	Continuous	1	17/10/16	24/10/16	-	-	-	0.1
10	PM <sub>10</sub>	µg/m <sup>3</sup>	Every 6 days	5	Various	4/11/16	5.9	8.5	8.9	11.8
11	Conductivity	µS/cm	Special Frequency 1*	0	-	-	-	-	-	-
	Total organic carbon	mg/L					-	-	-	-
12	Conductivity	µS/cm	Special Frequency 1*	3	Various	Various	242	266.7	264	294
	Total organic carbon	mg/L					2	3	3.7	6
13	TSS	mg/L	Special Frequency 2**	0	-	-	-	-	-	-
	Conductivity	µS/cm					-	-	-	-
	Oil & Grease	mg/L					-	-	-	-
	pH	pH					-	-	-	-
	Total organic carbon	mg/L					-	-	-	-



# WHITEHAVEN COAL

## Rocgen Coal Mine- Monthly Monitoring Summary

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Month	Date(s) Sampled	Date(s) Obtained	Min Value	Mean Value	Median Value	Max or Only Value
14	TSS	mg/L	Special Frequency 2**	0			-	-	-	
	Conductivity	µS/cm					-	-	-	
	Oil & Grease	mg/L					-	-	-	
	pH	pH					-	-	-	
	Total organic carbon	mg/L					-	-	-	
15	TSS	mg/L	Special Frequency 2**	0			-	-	-	
	Conductivity	µS/cm					-	-	-	
	Oil & Grease	mg/L					-	-	-	
	pH	pH					-	-	-	
	Total organic carbon	mg/L					-	-	-	

Table 2 - Pollutant Limits Apply

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Month	Date(s) Sampled	Date(s) Obtained	Min Value	Max or Only Value	100%ile Limit	Exceedance (Yes/No)	Comments
11	TSS	mg/L	Special Frequency 1*	0	-	-	-	-	-	-	-
	Oil & Grease	mg/L					-	-	-	-	
	pH	pH					-	-	-	-	
12	TSS	mg/L	Special Frequency 1*	3	Various	Various	6	35	50	No	Controlled discharges following flocculant application
	Oil & Grease	mg/L					<5	<5	10	No	
	pH	pH					7.98	8.35	6.5-8.5	No	

\* Special Frequency 1 means the collection of samples as soon as practicable after each discharge commences and in any case not more than 12 hours after each discharge commences.

\*\* Special Frequency 2 means collection of samples quarterly (in the event of flow during the quarter) at a time when there is flow and as soon as practicable after each wet weather discharge from points 11 and 12 commences and in any case not more than 12 hours after each discharge commences.

Rocgen Coal Mine- Monthly Monitoring Summary

Table 3 – Monitoring (Quarterly & Yearly – No Limits apply)

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Month	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max Value/Only Value
16	Aluminium	mg/L	Yearly	-	-	-	-	-	-	-
	Arsenic	mg/L					-	-	-	-
	Bicarbonate	mg/L					-	-	-	-
	Chloride	mg/L					-	-	-	-
	Iron	mg/L					-	-	-	-
	Manganese	mg/L					-	-	-	-
	Sodium	mg/L					-	-	-	-
16	Conductivity	µS/cm	Quarterly	-	-	-	-	-	-	-
	Oil & Grease	mg/L					-	-	-	-
	pH	pH					-	-	-	-
	TOC	mg/L					-	-	-	-
	TSS	mg/L					-	-	-	-



**Rocglen Coal Mine- Monthly Monitoring Summary**  
**Table 4 – Monitoring (Noise – Limits Apply)**

EPL ID	Date	Start Time	Period (mins)	Measured Levels – dB(A) Leq 15min Day	Measured Levels – dB(A) Leq 15min Evening	Measured Levels – dB(A) Leq 15min Night	Measured Levels – dB(A) LA 1min Night	Limits	Wind speed (m/s) /direction	Compliant (Y/N)	Comments
N1	-	-	15	-				35 dB(A) Leq (15 min) Day, Evening, Night  45dB(A) LA (1 min) Night	-	-	
		-	15		-				-	-	
		-	15			-			-	-	
		-	1				-		-	-	
	-	15	-				-		-		
	-	15		-			-		-		
	-	15			-		-		-		
	-	1				-	-		-		
	-	15	-				-		-		
	-	15		-			-		-		
	-	15			-		-		-		
	-	1				-	-		-		
N2	-	-	15	-				35 dB(A) Leq (15 min) Day, Evening, Night  45dB(A) LA (1 min) Night	-	-	
		-	15		-				-	-	
		-	15			-			-	-	
		-	1				-		-	-	
	-	15	-				-		-		
	-	15		-			-		-		
	-	15			-		-		-		
	-	1				-	-		-		
	-	15	-				-		-		
	-	15		-			-		-		
	-	15			-		-		-		
	-	1				-	-		-		

Note: Measured noise levels refer to noise attributable to Rocglen Coal Mine

**Table 5 – Monitoring (Blasts – Limits Apply)**



# WHITEHAVEN COAL

## Rocgen Coal Mine- Monthly Monitoring Summary

EPL ID	Parameter	Units of Measure	Frequency	No. of Blasts for the Month	Average Value	Max or Only Value	100%ile Limit	(Potential) Non-compliance /breach
BB1	Blast Noise	dB (Lin Peak)	Every Blast	5	96.0	109.0	120	No
	Blast Vibration	mm/s	Every Blast		0.08	0.7	10	No
BB3	Blast Noise	dB (Lin Peak)	Every Blast	5	99.2	102.6	120	No
	Blast Vibration	mm/s	Every Blast		0.22	0.2	10	No



## Rocgen Coal Mine- Monthly Monitoring Summary

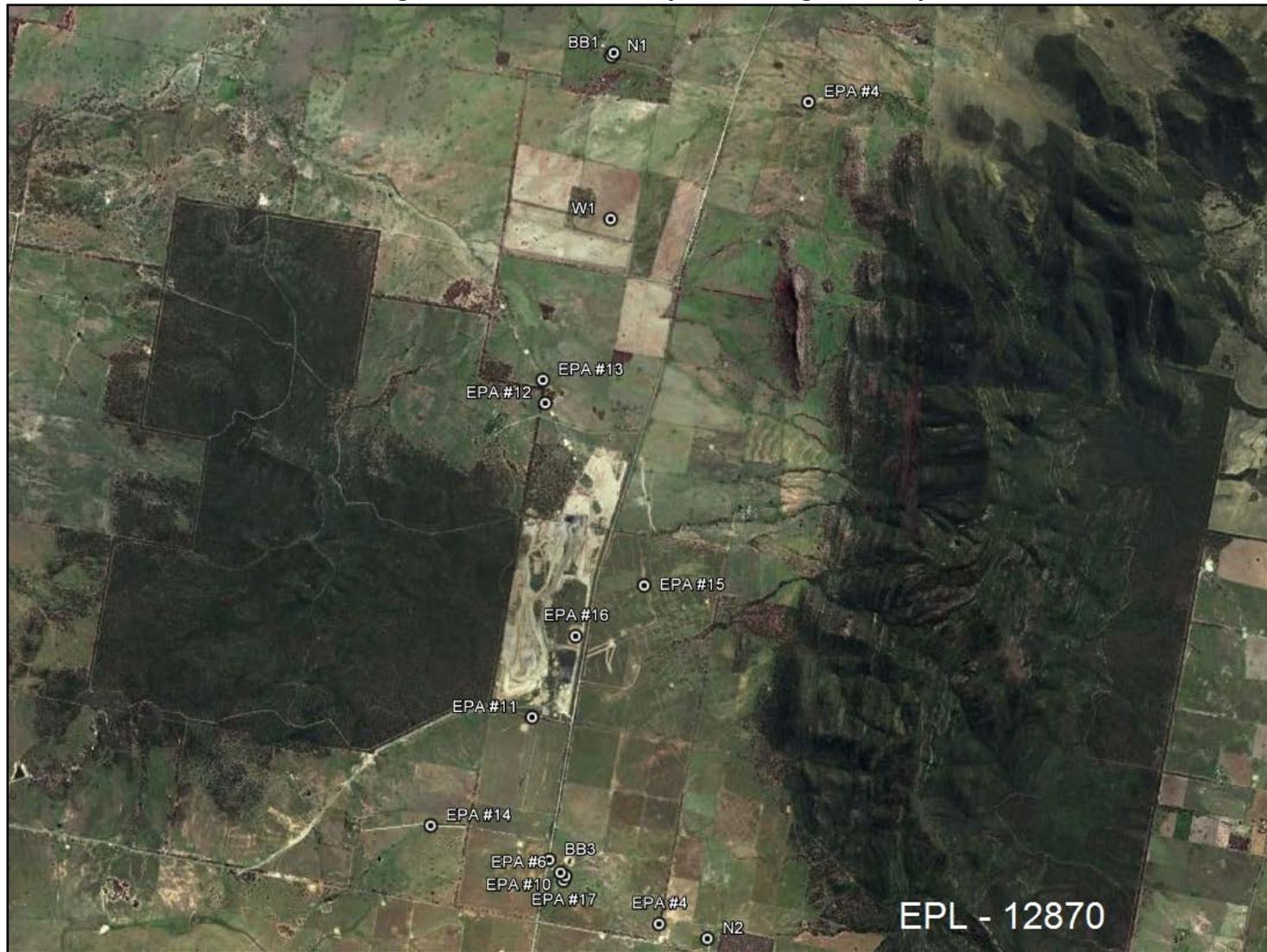


Figure 1 – EPL 12870 Monitoring Locations



## Rocglen Coal Mine- Monthly Monitoring Summary

### Site Information

**EPL No:** 12870

**EPA Website Link:** <http://epa.nsw.gov.au/prpoeoapp/ViewPOEOLicence.aspx?DOCID=40278&SYSUID=1&LICID=12870>

**Licensee:** Whitehaven Coal Mining Pty Ltd

**Licensee Address:** Rocglen Coal Mine, Wean Road, GUNNEDAH NSW 2380

**EPL Monitoring Points:** See Figure 1 below

**Sampling Period:** November 2016

**Obtained Date:** 8 December 2016

**Publication Date:** 14 December 2016

**Table 1 - No Pollutant Limits Apply**

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Month	Date(s) Sampled	Date(s) Obtained	Min Value	Mean Value	Median Value	Max or Only Value
4	Particulates-Deposited Matter	g/m <sup>2</sup> /month	Continuous	1	16/11/16	22/11/16	-	-	-	0.9
6	Particulates-Deposited Matter	g/m <sup>2</sup> /month	Continuous	1	16/11/16	22/11/19	-	-	-	2.3
7	Particulates-Deposited Matter	g/m <sup>2</sup> /month	Continuous	1	16/11/16	22/11/16	-	-	-	0.3
10	PM <sub>10</sub>	µg/m <sup>3</sup>	Every 6 days	5	Various	8/12/16	8.1	15.5	15.7	21.2
11	Conductivity	µS/cm	Special Frequency 1*	0	-	-	-	-	-	-
	Total organic carbon	mg/L					-	-	-	-
12	Conductivity	µS/cm	Special Frequency 1*	0	-	-				
	Total organic carbon	mg/L								
13	TSS	mg/L	Special Frequency 2**	0	-	-	-	-	-	-
	Conductivity	µS/cm					-	-	-	-
	Oil & Grease	mg/L					-	-	-	-
	pH	pH					-	-	-	-
	Total organic carbon	mg/L					-	-	-	-



# WHITEHAVEN COAL

## Rocgen Coal Mine- Monthly Monitoring Summary

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Month	Date(s) Sampled	Date(s) Obtained	Min Value	Mean Value	Median Value	Max or Only Value
14	TSS	mg/L	Special Frequency 2**	0			-	-	-	
	Conductivity	µS/cm					-	-	-	
	Oil & Grease	mg/L					-	-	-	
	pH	pH					-	-	-	
	Total organic carbon	mg/L					-	-	-	
15	TSS	mg/L	Special Frequency 2**	0			-	-	-	
	Conductivity	µS/cm					-	-	-	
	Oil & Grease	mg/L					-	-	-	
	pH	pH					-	-	-	
	Total organic carbon	mg/L					-	-	-	

Table 2 - Pollutant Limits Apply

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Month	Date(s) Sampled	Date(s) Obtained	Min Value	Max or Only Value	100%ile Limit	Exceedance (Yes/No)	Comments
11	TSS	mg/L	Special Frequency 1*	0	-	-	-	-	-	-	-
	Oil & Grease	mg/L					-	-	-	-	
	pH	pH					-	-	-	-	
12	TSS	mg/L	Special Frequency 1*	0	-	-	-	-	-	-	-
	Oil & Grease	mg/L					-	-	-	-	
	pH	pH					-	-	-	-	

\* Special Frequency 1 means the collection of samples as soon as practicable after each discharge commences and in any case not more than 12 hours after each discharge commences.

\*\* Special Frequency 2 means collection of samples quarterly (in the event of flow during the quarter) at a time when there is flow and as soon as practicable after each wet weather discharge from points 11 and 12 commences and in any case not more than 12 hours after each discharge commences.



**Rocgen Coal Mine- Monthly Monitoring Summary**  
**Table 3 – Monitoring (Quarterly & Yearly – No Limits apply)**

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Month	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max Value/Only Value
16	Aluminium	mg/L	Yearly	-	-	-	-	-	-	-
	Arsenic	mg/L					-	-	-	-
	Bicarbonate	mg/L					-	-	-	-
	Chloride	mg/L					-	-	-	-
	Iron	mg/L					-	-	-	-
	Manganese	mg/L					-	-	-	-
	Sodium	mg/L					-	-	-	-
16	Conductivity	µS/cm	Quarterly	1	9/11/16	16/11/16	-	-	-	2010
	Oil & Grease	mg/L					-	-	-	<5
	pH	pH					-	-	-	9.2
	TOC	mg/L					-	-	-	4
	TSS	mg/L					-	-	-	<5

**Table 4 – Monitoring (Noise – Limits Apply)**



## Rocglen Coal Mine- Monthly Monitoring Summary

EPL ID	Date	Start Time	Period (mins)	Measured Levels – dB(A) Leq 15min Day	Measured Levels – dB(A) Leq 15min Evening	Measured Levels – dB(A) Leq 15min Night	Measured Levels – dB(A) LA 1min Night	Limits	Wind speed (m/s) /direction	Compliant (Y/N)	Comments
N1	-	-	15	-				35 dB(A) Leq (15 min) Day, Evening, Night  45dB(A) LA (1 min) Night	-	-	
		-	15		-				-	-	
		-	15			-			-	-	
		-	1				-		-	-	
	-	15	-				-		-		
	-	15		-			-		-		
	-	15			-		-		-		
	-	1				-	-		-		
	-	15	-				-		-		
	-	15		-			-		-		
	-	15			-		-		-		
	-	1				-	-		-		
N2	-	-	15	-				35 dB(A) Leq (15 min) Day, Evening, Night  45dB(A) LA (1 min) Night	-	-	
		-	15		-				-	-	
		-	15			-			-	-	
		-	1				-		-	-	
	-	15	-				-		-		
	-	15		-			-		-		
	-	15			-		-		-		
	-	1				-	-		-		
	-	15	-				-		-		
	-	15		-			-		-		
	-	15			-		-		-		
	-	1				-	-		-		

Note: Measured noise levels refer to noise attributable to Rocglen Coal Mine

**Table 5 – Monitoring (Blasts – Limits Apply)**



# WHITEHAVEN COAL

## Rocgen Coal Mine- Monthly Monitoring Summary

EPL ID	Parameter	Units of Measure	Frequency	No. of Blasts for the Month	Average Value	Max or Only Value	100%ile Limit	(Potential) Non-compliance /breach
BB1	Blast Noise	dB (Lin Peak)	Every Blast	3	91.3	99.7	120	No
	Blast Vibration	mm/s	Every Blast		0.15	0.27	10	No
BB3	Blast Noise	dB (Lin Peak)	Every Blast	3	96.7	103.8	120	No
	Blast Vibration	mm/s	Every Blast		0.29	0.51	10	No



## Rocgen Coal Mine- Monthly Monitoring Summary



Figure 1 – EPL 12870 Monitoring Locations



## Rocglen Coal Mine- Monthly Monitoring Summary

### Site Information

**EPL No:** 12870

**EPA Website Link:** <http://epa.nsw.gov.au/prpoeoapp/ViewPOEOLicence.aspx?DOCID=40278&SYSUID=1&LICID=12870>

**Licensee:** Whitehaven Coal Mining Pty Ltd

**Licensee Address:** Rocglen Coal Mine, Wean Road, GUNNEDAH NSW 2380

**EPL Monitoring Points:** See Figure 1 below

**Sampling Period:** December 2016

**Obtained Date:** 13 January 2017

**Publication Date:** 18 January 2017

**Table 1 - No Pollutant Limits Apply**

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Month	Date(s) Sampled	Date(s) Obtained	Min Value	Mean Value	Median Value	Max or Only Value
4	Particulates-Deposited Matter	g/m <sup>2</sup> /month	Continuous	1	19/12/16	22/12/16	-	-	-	1.1
6	Particulates-Deposited Matter	g/m <sup>2</sup> /month	Continuous	1	19/12/16	22/12/16	-	-	-	1.6
7	Particulates-Deposited Matter	g/m <sup>2</sup> /month	Continuous	1	19/12/16	22/12/16	-	-	-	2.1
10	PM <sub>10</sub>	µg/m <sup>3</sup>	Every 6 days	6	Various	13/01/17	9.2	17.9	19.1	25.8
11	Conductivity	µS/cm	Special Frequency 1*	0	-	-	-	-	-	-
	Total organic carbon	mg/L					-	-	-	-
12	Conductivity	µS/cm	Special Frequency 1*	0	-	-				
	Total organic carbon	mg/L								
13	TSS	mg/L	Special Frequency 2**	0	-	-	-	-	-	-
	Conductivity	µS/cm					-	-	-	-
	Oil & Grease	mg/L					-	-	-	-
	pH	pH					-	-	-	-
	Total organic carbon	mg/L					-	-	-	-



# WHITEHAVEN COAL

## Rocgen Coal Mine- Monthly Monitoring Summary

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Month	Date(s) Sampled	Date(s) Obtained	Min Value	Mean Value	Median Value	Max or Only Value
14	TSS	mg/L	Special Frequency 2**	0			-	-	-	
	Conductivity	µS/cm					-	-	-	
	Oil & Grease	mg/L					-	-	-	
	pH	pH					-	-	-	
	Total organic carbon	mg/L					-	-	-	
15	TSS	mg/L	Special Frequency 2**	0			-	-	-	
	Conductivity	µS/cm					-	-	-	
	Oil & Grease	mg/L					-	-	-	
	pH	pH					-	-	-	
	Total organic carbon	mg/L					-	-	-	

Table 2 - Pollutant Limits Apply

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Month	Date(s) Sampled	Date(s) Obtained	Min Value	Max or Only Value	100%ile Limit	Exceedance (Yes/No)	Comments
11	TSS	mg/L	Special Frequency 1*	0	-	-	-	-	-	-	-
	Oil & Grease	mg/L					-	-	-	-	
	pH	pH					-	-	-	-	
12	TSS	mg/L	Special Frequency 1*	0	-	-	-	-	-	-	-
	Oil & Grease	mg/L					-	-	-	-	
	pH	pH					-	-	-	-	

\* Special Frequency 1 means the collection of samples as soon as practicable after each discharge commences and in any case not more than 12 hours after each discharge commences.

\*\* Special Frequency 2 means collection of samples quarterly (in the event of flow during the quarter) at a time when there is flow and as soon as practicable after each wet weather discharge from points 11 and 12 commences and in any case not more than 12 hours after each discharge commences.



# WHITEHAVEN COAL

**Rocgen Coal Mine- Monthly Monitoring Summary**  
**Table 3 – Monitoring (Quarterly & Yearly – No Limits apply)**

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Month	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max Value/Only Value
16	Aluminium	mg/L	Yearly	-	-	-	-	-	-	-
	Arsenic	mg/L					-	-	-	-
	Bicarbonate	mg/L					-	-	-	-
	Chloride	mg/L					-	-	-	-
	Iron	mg/L					-	-	-	-
	Manganese	mg/L					-	-	-	-
	Sodium	mg/L					-	-	-	-
16	Conductivity	µS/cm	Quarterly	-	-	-	-	-	-	-
	Oil & Grease	mg/L					-	-	-	-
	pH	pH					-	-	-	-
	TOC	mg/L					-	-	-	-
	TSS	mg/L					-	-	-	-

**Table 4 – Monitoring (Noise – Limits Apply)**



# WHITEHAVEN COAL

## Rocglen Coal Mine- Monthly Monitoring Summary

EPL ID	Date	Start Time	Period (mins)	Measured Levels – dB(A) Leq 15min Day	Measured Levels – dB(A) Leq 15min Evening	Measured Levels – dB(A) Leq 15min Night	Measured Levels – dB(A) LA 1min Night	Limits	Wind speed (m/s) /direction	Compliant (Y/N)	Comments
N1	12/12/16	2:49pm	15	<20				35 dB(A) Leq (15 min) Day, Evening, Night  45dB(A) L <sub>A</sub> (1 min) Night	1.5/227	Y	
		9:05pm	15		<20				2.0/45	Y	
		11:34pm	15			<20			2.6/32	Y	
		11:34pm	1				<20		2.6/32	Y	
	13/12/16 14/12/16	9:03am	15	<20					3.1/288	Y	
		8:34pm	15		<20				1.3/293	Y	
		12:19am	15			<20			1.5/8	Y	
		12:19am	1				<20		1.5/8	Y	
	14/12/16	9:37am	15	<20					4.3/306	Y	
		9:06pm	15		<20				2.0/74	Y	
		11:34pm	15			<20			3.3/159	Y	
		11:34pm	1				<20		3.3/159	Y	
N2	12/12/16	12:40pm	15	<20				35 dB(A) Leq (15 min) Day, Evening, Night  45dB(A) L <sub>A</sub> (1 min) Night	1.5/131	Y	
		8:01pm	15		20				1.7/37	Y	
		10:00pm	15			23			2.3/18	Y	
		10:00pm	1				27		2.3/18	Y	
	13/12/16	7:00am	15	25					1.7/242	Y	
		7:16pm	15		22				1.6/261	Y	
		10:43pm	15			27			1.2/345	Y	
		10:43pm	1				32		1.2/345	Y	
	14/12/16	7:36am	15	32					3.4/306	Y	
		8:03pm	15		24				1.8/74	Y	
		10:00pm	15			28			3.2/54	Y	
		10:00pm	1				34		3.2/54	Y	

Note: Measured noise levels refer to noise attributable to Rocglen Coal Mine

**Table 5 – Monitoring (Blasts – Limits Apply)**



# WHITEHAVEN COAL

## Rocgen Coal Mine- Monthly Monitoring Summary

EPL ID	Parameter	Units of Measure	Frequency	No. of Blasts for the Month	Average Value	Max or Only Value	100%ile Limit	(Potential) Non-compliance /breach
BB1	Blast Noise	dB (Lin Peak)	Every Blast	4	100.0	103.1	120	No
	Blast Vibration	mm/s	Every Blast		0.16	0.32	10	No
BB3	Blast Noise	dB (Lin Peak)	Every Blast	4	106.3	114.3	120	No
	Blast Vibration	mm/s	Every Blast		0.46	1.14	10	No



## Rocgen Coal Mine- Monthly Monitoring Summary



Figure 1 – EPL 12870 Monitoring Locations